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STIC Search Report

STIC Database Tracking Number 10500:

TO: John Hardee Location: CP3 9B36

Art Unit : 1751 October 1, 2003

Case Serial Number: 10/052967

From: Kathleen Fuller Location: EIC 1700

CP3/4 3D62

Phone: 308-4290

Kathleen.Fuller@uspto.gov

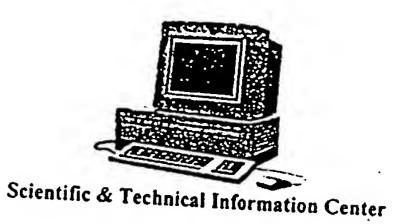
Search Notes

NEW DOMESTIC NOT



EIC1700

Search Results Feedback Form (Optional)



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Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

Voluntary Results Feedback Form	
I am an examiner in Workgroup:	Example: 1713
Relevant prior art found, search results used as fol	llovus:
102 rejection	
103 rejection	
Cited as being of interest.	
Helped examiner better understand the ir	ivention
Helped examiner better understand the st	ate of the art in their technologies
Types of relevant prior art found:	are in their technology.
Foreign Patent(s)	
Non-Patent Literature (journal articles, conference proceedings	new product
Relevant prior art not found:	, new product announcements etc.)
	ant Challes I I
Search results were not useful in determining	art (helped determine patentability). ing patentability or understanding the invention.
ner Comments:	or anderstanding the invention.
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Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> FILE HCAPLUS

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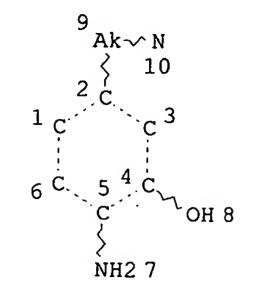
FILE COVERS 1907 - 1 Oct 2003 VOL 139 ISS 14 FILE LAST UPDATED: 30 Sep 2003 (20030930/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE

L1

STR



100 structures from query

NODE ATTRIBUTES:

NSPEC IS RC AΤ 10 DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L2SCR 1838 AND 1993 AND 2004 L3SCR 403 L4SCR 1568

L6 100 SEA FILE=REGISTRY SSS FUL L1 AND L2 AND L3 AND L4 L7 STR

subset search

NODE ATTRIBUTES:

NSPEC IS RC AT 10 CONNECT IS E2 RC AT DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED 29 structures

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L9 29 SEA FILE=REGISTRY SUB=L6 SSS FUL L7 L10 41 SEA FILE=HCAPLUS ABB=ON L9

41 CA references L11

1 SEA FILE=HCAPLUS ABB=ON L10 AND (HAIR OR KERAT?)

=> D ALL L11 HITSTR

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

1 CA reference on utility + 40 CA references without utility

```
ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS on STN
  L11
       2002:574887 HCAPLUS
  AN
       137:129539
  DN
       Primary intermediates for oxidative coloration of hair
  TI
       Lim, Mu-Ill; Pan, Yuh-Guo
  IN
       Clairol Incorporated, USA
  PA
  SO
       PCT Int. Appl., 48 pp.
       CODEN: PIXXD2
  DT
       Patent
       English
  LA
       ICM A61K007-13
  IC
  CC
       62-3 (Essential Oils and Cosmetics)
  FAN.CNT 1
      PATENT NO.
                       KIND
                             DATE
                                            APPLICATION NO.
                                                             DATE
  PI
      WO 2002058654
                             20020801
                        A1
                                            WO 2002-US1533
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
              VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      US 2002144359
                            20021010
                                           US 2002-52967
 PRAI US 2001-263588P
                                                            20020118
                            20010123
     MARPAT 137:129539
 OS
     Primary intermediates for hair coloring compns. for oxidative
AB
     dyeing of hair are 2-amino-5-aminomethylphenols. Hair
     dye compns. contained, e.g., 2-amino-5-phenylaminomethylphenol and
     hair dye primary intermediate oxidn amino phenol
ST
IT
     Oxidizing agents
        (2-amino-5-aminomethylphenol primary intermediates for oxidative
        coloration of hair)
ΙT
     Hair preparations
        (dyes; 2-amino-5-aminomethylphenol primary intermediates for oxidative
        coloration of hair)
IT
     Amination.
        (reductive; 2-amino-5-aminomethylphenol primary intermediates for
       oxidative coloration of hair)
    90-15-3, 1-Naphthol
IT
                          95-55-6, 2-Aminophenol
    2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol
    106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol,
    biological studies
                        123-30-8, 4-Aminophenol
    4-Methylaminophenol 591-27-5, 3-Aminophenol
                                                   150-75-4,
    2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine
                    2835-95-2, 5-Amino-2-methylphenol
                                                                2380-86-1,
    2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol
                                                        2835-98-5,
    2-Methyl-1-naphthol
                         7575-35-1 16867-03-1, 2-Aminopyridin-3-ol
    17672-22-9, 2-Amino-6-methylphenol
                                        26021-57-8
    4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-one
                                                     41927-22-4,
    3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-
   methylphenol 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol
   93841-24-8, 2-(2,5-Diaminophenyl)ethanol
   131311-66-5 155601-17-5 157469-54-0
                                              94082-77-6
                                                           129697-50-3
   3-(2,4-Diaminophenoxy)-1-propanol 329320-36-7 444169-67-9
                                                           307493-94-3,
```

444169-68-0 444169-69-1 444169-70-4 444169-71-5 444169-72-6 444169-73-7 444169-74-8 444169-75-9

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (2-amino-5-aminomethylphenol primary intermediates for oxidative coloration of hair)

704-13-2, 3-Hydroxy-4-nitrobenzaldehyde IT

RL: RCT (Reactant); RACT (Reactant or reagent)

(2-amino-5-aminomethylphenol primary intermediates for oxidative coloration of hair)

RE.CNT THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

(1) Hurley; WO 9940093 1999 HCAPLUS

(2) Loev; Journal of Medicinal Chemistry 1985, V18(1), P24

(3) Yamane; JP 6345282 1988

444169-67-9 444169-68-0 444169-69-1 IT444169-70-4 444169-71-5 444169-72-6

444169-73-7 444169-74-8 444169-75-9 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (2-amino-5-aminomethylphenol primary intermediates for oxidative coloration of hair)

444169-67-9 HCAPLUS RN

Phenol, 2-amino-5-[(phenylamino)methyl]- (9CI) (CA INDEX NAME) CN

444169-68-0 HCAPLUS RN

Phenol, 2-amino-5-(1-piperidinylmethyl)- (9CI) (CA INDEX NAME) CN

$$H_2N$$
 CH_2 N

444169-69-1 HCAPLUS RN

Phenol, 2-amino-5-[(3-pyridinylamino)methyl]- (9CI) (CA INDEX NAME) CN

$$H_{2N}$$
 $CH_{2}-NH$

444169-70-4 HCAPLUS RN

Phenol, 2-amino-5-[(4,5-dihydro-1H-imidazol-1-yl)methyl]- (9CI) (CA INDEX CN

RN 444169-71-5 HCAPLUS

CN Phenol, 2-amino-5-[(methylamino)methyl]- (9CI) (CA INDEX NAME)

RN 444169-72-6 HCAPLUS

CN Phenol, 2-amino-5-[(dimethylamino)methyl]- (9CI) (CA INDEX NAME)

$$H_2N$$
 OH
 CH_2-NMe_2

RN 444169-73-7 HCAPLUS

CN Phenol, 2-amino-5-[[(hydroxymethyl)amino]methyl]- (9CI) (CA INDEX NAME)

$$H_2N$$
OH
 $CH_2-NH-CH_2-OH$

RN 444169-74-8 HCAPLUS

CN Phenol, 2-amino-5-(4-morpholinylmethyl)- (9CI) (CA INDEX NAME)

$$H_2N$$
 CH_2
 N
 O

RN 444169-75-9 HCAPLUS CN Phenol, 2-amino-5-[(dipropylamino)methyl]- (9CI) (CA INDEX NAME)

=> S L10 NOT L9
41 L9
L12 0 L10 NOT L9

=> D QUE L1 STR

NODE ATTRIBUTES:

NSPEC IS RC AT 10 DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

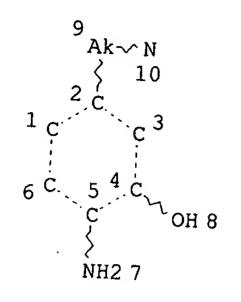
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L2 SCR 1838 AND 1993 AND 2004

L3 SCR 403 L4 SCR 1568

L6
100 SEA FILE=REGISTRY SSS FUL L1 AND L2 AND L3 AND L4
STR



NODE ATTRIBUTES:

NSPEC IS RC AT 10 CONNECT IS E2 RC AT DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L9 29 SEA FILE=REGISTRY SUB=L6 SSS FUL L7 L10

41 SEA FILE=HCAPLUS ABB=ON L9 L11

1 SEA FILE=HCAPLUS ABB=ON L10 AND (HAIR OR KERAT?) L13

40 SEA FILE=HCAPLUS ABB=ON L10 NOT L11

=> D L13 ALL 1-40 HITSTR

the structures with no ACS ON STN utility specified

L13 ANSWER 1 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN 2003:232918 HCAPLUS AN

DN

138:382900

Structure and function of neuromelanin TIΑU

Ito, Shosuke; Wakamatsu, Kazumasa; Zecca, Luigi

Fujita Health University School of Health Sciences, Toyoake, Aichi,

Advances in Behavioral Biology (2002), 53(Catecholamine Research), 269-272 Plenum Publishing Corp. PB

 \mathtt{DT} Journal; General Review

English LA

14-0 (Mammalian Pathological Biochemistry) CC

Section cross-reference(s): 2, 6

A review. Thiazole-2,4,5-tricarboxylic acid to pyrrole-2,3-dicarboxylic AB acid (PDCA) ratio and the 4-aminohydroxyphenylethylamine to PDCA ratio were used to chem. characterized neuromelanin isolated from human substance nigra. Melanin moiety of neuromelanin consist mostly of dopamine-derived units with 10-20% incorporation of cysteinyldopaminederived units. Content of melanin in substantia nigra was approx. 180 .mu.g/g wet wt. on the basis of the content of isolated neuromelanin. Compared to dopamine-melanin, dopamine was only five-fold more toxic to mice cerebellar granular cells and PC12 cells suggesting that neuromelanin, rather than dopamine itself, plays a major role in the ST

review neuromelanin substantia nigra dopamine parkinsonism

```
IT
         Nerve, disease
            (degeneration; structure and function of neuromelanin from brain and
            its chem. degrdn. products)
    IT
         Melanins
        RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
           (neuromelanins; structure and function of neuromelanin from brain and
           its chem. degrdn. products)
   IT
        Human
        Parkinson's disease
           (structure and function of neuromelanin from brain and its chem.
           degrdn. products)
        Melanins
   IT
        RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological
        study); RACT (Reactant or reagent)
           (structure and function of neuromelanin from brain and its chem.
           degrdn. products)
  IT
        Brain
           (substantia nigra; structure and function of neuromelanin from brain
          and its chem. degrdn. products)
       51-61-6, Dopamine, biological studies
  IT
       RL: ADV (Adverse effect, including toxicity); BSU (Biological study,
       unclassified); BIOL (Biological study)
          (structure and function of neuromelanin from brain and its chem.
          degrdn. products)
       52-90-4, L-Cysteine, biological studies
  IT
       RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological
       study); RACT (Reactant or reagent)
          (structure and function of neuromelanin from brain and its chem.
         degrdn. products)
      945-32-4P, Pyrrole-2,3,5-tricarboxylic acid
  IT
      Pyrrole-2,3-dicarboxylic acid 22358-80-1P, Thiazole-4,5-dicarboxylic
      acid 104083-77-4P 290294-61-0P, Thiazoletricarboxylic acid
      RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
      BIOL (Biological study); PREP (Preparation)
         (structure and function of neuromelanin from brain and its chem.
         degrdn. products)
 RE.CNT
               THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Carstam, R; Biochim Biophys Acta 1991, V1097, P152 HCAPLUS
 (2) D'Ischia, M; Pigment Cell Res 1997, V10, P370 HCAPLUS
 (3) Fornstedt, B; J Neural Transm (P-D Sect) 1989, V1, P279 MEDLINE
 (4) Ito, S; Pigment Cell Res 1998, V11, P120 HCAPLUS
(5) Ito, S; Pigment Cell Res 2000, Suppl 8, P103
(6) Odh, G; J Neurochem 1994, V62, P2030 HCAPLUS
(7) Offen, D; Neurosci Lett 1999, V260, P101 HCAPLUS
(8) Rosengren, E; J Neural Transm 1985, V63, P247 HCAPLUS
(9) Wakamatsu, K; Neurosci Lett 1991, V131, P57 HCAPLUS
(10) Zecca, L; J Neurochem 2000, V74, P1758 HCAPLUS
     104083-77-4P
     RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
     BIOL (Biological study); PREP (Preparation)
        (structure and function of neuromelanin from brain and its chem.
        degrdn. products)
    104083-77-4 HCAPLUS
RN
    Phenol, 2-amino-5-(2-aminoethyl)- (9CI) (CA:INDEX NAME)
CN
```

$$H_2N$$
OH
 $CH_2-CH_2-NH_2$

- ANSWER 2 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13
- 2003:57478 HCAPLUS AN
- 139:6651 DN
- Direct preparation of polyfunctional amino-substituted arylmagnesium \mathtt{TI} reagents via an iodine-magnesium exchange reaction ΑU
- Varchi, Greta; Kofink, Christiane; Lindsay, David M.; Ricci, Alfredo; CS
- Research Area of Bologna (CNR-ISOF), National Research Council, Bologna, SO
- Chemical Communications (Cambridge, United Kingdom) (2003), (3), 396-397 PB
- Royal Society of Chemistry
- Journal DT
- LAEnglish
- 25-20 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC
- The successive addn. of PhMgCl and i-PrMgCl to functionalized iodoanilines AB allows their conversion to the corresponding amino-functionalized Grignard reagents, which react smoothly with a range of electrophiles in high
- iodoaniline Grignard reaction substitution electrophile; iodine magnesium STexchange benzoate benzonitrile deriv prepn IT
- Substitution reaction, electrophilic
 - (Grignard reaction of iodoanilines and subsequent substitution by electrophiles)
- Grignard reaction IT
 - (of iodoanilines and subsequent substitution by electrophiles)
- 100-52-7, Benzaldehyde, reactions IT104-55-2, Cinnamaldehyde Allyl bromide, reactions 106-96-7, Propargyl bromide propiolate 1070-66-2, 2-Butylacrolein 623-47-2, Ethyl

Cyclohexanecarboxaldehyde 5400-81-7 22737-37-7, N,O-

Bis(trimethylsilyl)hydroxylamine 33348-34-4 469911-86-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(Grignard reaction of iodoanilines and subsequent substitution by electrophiles)

100-59-4, Phenylmagnesium chloride 1068-55-9, Isopropylmagnesium ΙŢ

RL: RGT (Reagent); RACT (Reactant or reagent)

(Grignard reaction of iodoanilines and subsequent substitution by electrophiles)

IT55586-26-0P 534582-49-5P 534582-51-9P

534582-54-2P 534582-55-3P 534582-56-4P 534582-57-5P 534582-61-1P 534582-62-2P 534582-58-6P 534582-63-3P 534582-64-4P

534582-65-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(Grignard reaction of iodoanilines and subsequent substitution by electrophiles)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

(1) Alberti, A; J Org Chem 1996, V61, P1677 HCAPLUS

- (2) Boudier, A; Angew Chem, Int Ed 2000, V39, P4414
- (3) Boymond, L; Angew Chem, Int Ed 1998, V37, P1701 HCAPLUS
- (4) Casarini, A; J Org Chem 1993, V58, P5620 HCAPLUS.
- (5) Dembach, P; Chem-Eur J 2000, V6, P1281
- (6) Herrinton, P; Org Proc Res Dev 2001, V5, P80 HCAPLUS
- (7) Jensen, A; Synthesis 2002, P565 HCAPLUS
- (8) Knight, F; Tetrahedron 1997, V53, P11411 HCAPLUS
- (9) Knochel, P; J Org Chem 1988, V53, P2390 HCAPLUS
- (10) Nicolaou, K; Angew Chem, Int Ed 1998, V37, P2717 HCAPLUS
- (11) Okubo, M; Bull Chem Soc Jpn 1980, V53, P281 HCAPLUS
- (12) Rottlander, M; Chem-Eur J 2000, V6, P767 HCAPLUS
- (13) Sapountzis, I; Angew Chem, Int Ed 2002, V41, P1610 HCAPLUS (14) Varchi, G; Synlett 2001, P477 HCAPLUS
- 55586-26-0P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (Grignard reaction of iodoanilines and subsequent substitution by electrophiles) 55586-26-0 HCAPLUS
- RN
- Benzonitrile, 4-amino-3-hydroxy- (9CI) CN(CA INDEX NAME)

- ANSWER 3 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13 AN
- 2002:777862 HCAPLUS
- 137:294765 DN
- Preparation of 2-sulfamoylphenols as IL-8 inhibitors with increased \mathtt{TI} metabolic stability IN
- Palovich, Michael R.; Widdowson, Katherine L. PA
- Smithkline Beecham Corporation, USA
- SO PCT Int. Appl., 37 pp. CODEN: PIXXD2
- DTPatent
- LAEnglish
- IC ICM CO7C
- 25-13 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC FAN.CNT 1

PI	PATENT N 	A2	A2 20021010 A3 20021128			NO / 1111/-115 111/120 6666-									
	1 U T RW: G	AE, AG, CO, CR, GM, HR, LS, LT, PT, UA, UG, UG, TM GH, GM, CY, DE,	LU, L RO, R US, U	M, AT, ZZ, DE, D, IL, V, MA, U, SD, Z, VN,	AU, DK, IN, MD, SE, YU,	AZ, DM, IS, MG, SG, ZA,	JP, MK, SI, ZM,	KE, MN, SK, ZW,	KG, MW, SL, AM,	KP, MX, TJ, AZ,	KR, MZ, TM, BY,	KZ, NO, TN, KG,	GD, LC, NZ, TR, KZ,	GE, LK, OM, TT, MD,	GH, LR, PH, TZ, RU,

10/052967 . HARDEE 10/1/03 Page 11

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG PRAI US 2001-280411P 20010330 P MARPAT 137:294765 OS GI

$$(R^2)_{2N} - SO_2 \xrightarrow{OH} H_{2N} - SO_2 \xrightarrow{H} \stackrel{H}{N} \stackrel{H}{N} \xrightarrow{N} I$$

Ortho sulfonamide substituted phenols I [wherein R1 = independently H, ABhalo, NO2, CN, (halo)alkyl, alkenyl, (halo)alkoxy, azido, aryl(alkyl), arylalkenyl, aryl(alk)oxy, heterocyclyl(alkyl), heterocyclylalkoxy, heterocyclylalkenyl, or (un) substituted R4SOO-2(alkyl), (thio) ureido, carbamoyl(alkyl), carboxy(alkyl), sulfamoyl(alkyl), etc.; or (R1)2 = (un) substituted O(CH2)1-30 or 5-6 membered ring; R2 = independently H, OH, or (un) substituted OR3, alkyl, aryl(alkyl), arylalkenyl, cycloalkyl(alkyl), heteroaryl(alkyl), heteroarylalkenyl, heterocyclyl(alkyl), or heterocyclylalkenyl; R3 = (un)substituted alkyl, aryl(alkyl), heteroaryl(alkyl), heterocyclyl(alkyl), or carboxy; R4 = H or (un) substituted alkyl, aryl(alkyl), heteroaryl(alkyl), or heterocyclyl(alkyl); m = 0-4] and phenols substituted with other functional groups in the ortho position were prepd. as IL-8 inhibitors and tested for metabolic stability. For example, 3-amino-6-chloro-2hydroxybenzenesulfonamide (6-step prepn. given) was condensed with 2-bromophenylisocyanate in DMF to give the urea II (41%). Sulfonamide II displayed increased half-life (10.6 h vs. 0.09-0.19 h) and reduced clearance (4.6 mL/min/kg vs. 26-72 mL/min/kg) in rats compared to compds. having another functional group ortho to the phenol. In glucuronidation studies, phenols with ortho sulfonamides and ortho sulfones displayed reduced clearance (<0.6 mL/min/g vs. 2.4-15.4 mL/min/g) in human microsomes compared to the corresponding amide, sulfoxide, and alkyl substituted compds. Thus, phenols contg. an ortho sulfone or sulfonamide substituent have increased metabolic stability and/or half-life. sulfonamide sulfone phenol prepn increased metabolic stability; ST

sulfamoylhydroxyphenyl halophenyl urea prepn increased half life Sulfonamides IT

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(arenesulfonamides; prepn. of ortho sulfonamide and ortho sulfone phenols as IL-8 inhibitors with increased metabolic stability) Sulfones

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(aryl; prepn. of ortho sulfonamide and ortho sulfone phenols as $\rm IL{\text{--}8}$ inhibitors with increased metabolic stability) Drug metabolism

(prepn. and metabolic studies of ortho substituted phenols as IL-8 inhibitors)

Interleukin 8 receptors ΙT

IT

IT

```
RL: BSU (Biological study, unclassified); BIOL (Biological study)
            (prepn. and metabolic studies of ortho substituted phenols as IL-8
            inhibitors)
    IT
         Phenols, preparation
        RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
        preparation); THU (Therapeutic use); BIOL (Biological study); PREP
        (Preparation); RACT (Reactant or reagent); USES (Uses)
            (prepn. and metabolic studies of ortho substituted phenols as IL-8
           inhibitors)
   IT
        Human
           (prepn. of ortho sulfonamide and ortho sulfone phenols as IL-8
           inhibitors with increased metabolic stability)
   IT
        Aromatic compounds
        RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
        preparation); THU (Therapeutic use); BIOL (Biological study); PREP
        (Preparation); RACT (Reactant or reagent); USES (Uses)
           (sulfonamides; prepn. of ortho sulfonamide and ortho sulfone phenols as
          IL-8 inhibitors with increased metabolic stability)
  IT
       Aromatic compounds
       RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
       (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
          (sulfones; prepn. of ortho sulfonamide and ortho sulfone phenols as
          IL-8 inhibitors with increased metabolic stability)
       468064-33-7P, 1-(2-Bromophenyl)-3-(4-cyano-2-hydroxy-3-propylphenyl)urea
  IT
       RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
       (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
          (intermediate; prepn. and metabolic studies of ortho substituted
         phenols as IL-8 inhibitors)
      6579-54-0P, 2,6-Dichlorobenzenesulfonyl chloride 10290-98-9P,
 ΙT
      2,6-Dichlorobenzenesulfonamide
                                       89281-19-6P, 2,6-Dichloro-3-
      nitrobenzenesulfonamide
                                203190-56-1P, 2-Allyloxy-4-cyanonitrobenzene
      203190-57-2P, 2-Allyloxy-4-cyanoaniline 203201-41-6P,
      4-Cyano-2-hydroxy-3-(2-propenyl)aniline 203201-42-7P,
      4-Cyano-2-hydroxy-3-propylaniline
      nitrobenzenesulfonamide 276702-20-6P, 3-Amino-6-chloro-2-
                                          276702-19-3P, 6-Chloro-2-hydroxy-3-
      hydroxybenzenesulfonamide
                                 276702-24-0P, N,N-Dimethyl-6-chloro-2-hydroxy-
      3-nitrobenzenesulfonamide
                                  276702-25-1P, N,N-Dimethyl-3-amino-6-chloro-2-
     hydroxybenzenesulfonamide
                                  276702-27-3P, N-Methyl-6-chloro-2-hydroxy-3-
     {\tt nitrobenzene sulfonamide}
                               276702-28-4P, N-Methyl-3-amino-6-chloro-2-
     hydroxybenzenesulfonamide
                                 468064-28-0P, 2-Acetyl-6-chloro-3-
     nitrobenzenesulfonamide
                               468064-29-1P, N-Methyl-2-acetyl-6-chloro-3-
     nitrobenzenesulfonamide
                               468064-42-8P, 2,6-Dichloro-3-nitro-N-
     phenylbenzamide
                       468064-43-9P, 6-Chloro-2-hydroxy-3-nitro-N-
     phenylbenzamide
                       468064-44-0P, 3-Amino-6-chloro-2-hydroxy-N-
     phenylbenzamide
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (intermediate; prepn. and metabolic studies of ortho substituted
       phenols as IL-8 inhibitors)
    276702-15-9P, N-(4-Chloro-2-hydroxy-3-aminosulfonylphenyl)-N'-(2,3-
IT
    dichlorophenyl)urea
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
    (Preparation); RACT (Reactant or reagent); USES (Uses)
       (prepn. and metabolic studies of ortho substituted phenols as IL-8
       inhibitors)
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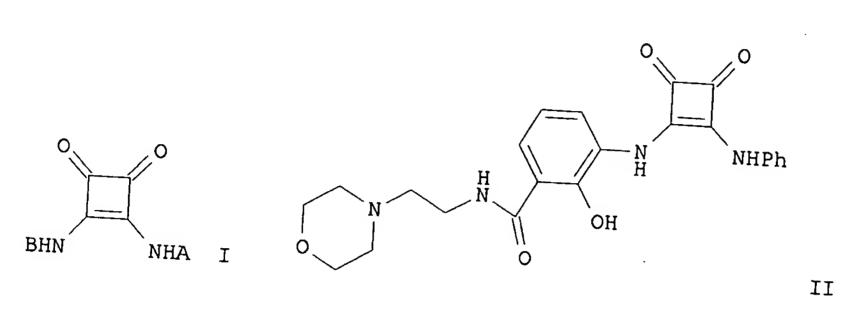
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276700-41-5P, N-(4-Chloro-2-hydroxy-3-aminosulfonylphenyl)-N'-(2,3-
       IT
           dichlorophenyl)urea sodium salt 276700-44-8P, N-[4-Chloro-3-(N'',N''-
           dimethylaminosulfonyl)-2-hydroxyphenyl]-N'-(2,3-dichlorophenyl)urea
           276700-45-9P, N-(2-Bromophenyl)-N'-[4-chloro-3-(N'',N''-
           dimethylaminosulfonyl)-2-hydroxyphenyl]urea
          N-[4-Chloro-2-hydroxy-3-(methylaminosulfonyl)phenyl]-N'-(2,3-
          dichlorophenyl)urea 276700-47-1P, N-(2-Bromophenyl)-N'-[4-chloro-2-
          hydroxy-3-(methylaminosulfonyl)phenyl]urea
          N-(2-Bromophenyl)-N'-(4-chloro-2-hydroxy-3-aminosulfonylphenyl)urea
          276702-16-0P, N-[4-Chloro-2-hydroxy-3-[(2-methoxyethyl)aminosulfonyl]pheny
          1]-N'-(2,3-dichlorophenyl)urea 378248-11-4P, 3-(2-Hydroxy-4-
          nitrophenylamino)-4-phenylaminocyclobut-3-ene-1,2-dione
          4-[(3,4-Dioxo-2-phenylaminocyclobut-1-enyl)amino]-3-hydroxybenzonitrile
          378248-14-7P, 6-Chloro-3-[(3,4-dioxo-2-phenylaminocyclobut-1-enyl)amino]-2-
         hydroxybenzenesulfonamide 468064-30-4P, N-[4-Chloro-2-hydroxy-3-[(2-
         methoxyethyl)sulfonyl]phenyl]-N'-(2,3-dichlorophenyl)urea
         1-(4-Chloro-2-hydroxy-3-methanesulfonylphenyl)-3-(2,3-dichlorophenyl)urea
         468064-32-6P, 1-(2-Bromophenyl)-3-(4-cyano-2-hydroxy-3-
         methanesulfonylphenyl)urea 468064-34-8P, 1-(2-Bromophenyl)-3-[4-cyano-2-
         hydroxy-3-(1-methylpropyl)phenyl]urea 468064-35-9P, 1-(2-Bromophenyl)-3-
         [4-cyano-2-hydroxy-3-(1-methylbutyl)phenyl]urea
         1-(2-Bromophenyl)-3-(4-cyano-2-hydroxy-3-isobutylphenyl)urea
        468064-37-1P, 1-(3-Bromo-4-cyano-2-hydroxyphenyl)-3-(2-bromophenyl)urea
        468064-38-2P, 1-(4-Chloro-2-hydroxy-3-methanesulfinylphenyl)-3-(2,3-
        dichlorophenyl)ureido]-2-hydroxyphenyl]methanesulfonamide
                              468064-39-3P, [6-Chloro-3-[3-(2,3-
        3-[3-(2-Bromophenyl)ureido]-6-chloro-2-hydroxybenzamide
        6-Chloro-3-[3-(2,3-dichlorophenyl)ureido]-2-hydroxy-N-phenylbenzamide
                                                                    468064-40-6P,
        468064-45-1P, 1-[4-Chloro-2-hydroxy-3-(morpholin-4-ylmethanoyl)phenyl]-3-
       phenylaminocyclobut-1-enyl)amino]-2-hydroxybenzonitrile 468064-48-4P,
       3-(3-Fluoro-2-hydroxyphenylamino)-4-phenylaminocyclobut-3-ene-1,2-dione
       RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
       (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
          (prepn. and metabolic studies of ortho substituted phenols as IL-8
          inhibitors)
  IT
       468064-50-8
                     468064-51-9
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
         (prepn. and metabolic studies of ortho substituted phenols as IL-8
         inhibitors)
      62-53-3, Aniline, reactions 1592-00-3, 2-Bromophenyl isocyanate
 IT
      18495-15-3, 2-Nitro-5-cyanophenol
      41195-90-8, 2,3-Dichlorophenyl isocyanate
                                         24966-39-0, 2,6-Dichlorobenzenethiol
      3-Anilino-4-ethoxy-1,2-cyclobut-3-enedione 55775-97-8,
     2,6-Dichloro-3-nitrobenzoic acid
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. and metabolic studies of ortho substituted phenols as IL-8
        inhibitors)
     203201-41-6P, 4-Cyano-2-hydroxy-3-(2-propenyl)aniline
IT
     203201-42-7P, 4-Cyano-2-hydroxy-3-propylaniline
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (intermediate; prepn. and metabolic studies of ortho substituted
       phenols as IL-8 inhibitors)
RN
    203201-41-6 HCAPLUS
    Benzonitrile, 4-amino-3-hydroxy-2-(2-propenyl)- (9CI) (CA INDEX NAME)
CN
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RN 203201-42-7 HCAPLUS CN Benzonitrile, 4-amino-3-hydroxy-2-propyl- (9CI) (CA INDEX NAME)

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ANSWER 4 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN
  L13
       2002:754340 HCAPLUS
  AN
       137:279205
  DN
      Preparation of 3,4-diaminocyclobutene-1,2-diones as CXC chemokine receptor
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      Taveras, Arthur G.; Aki, Cynthia J.; Bond, Richard W.; Chao, Jianping;
 IN
      Dwyer, Michael; Ferreira, Johan A.; Pachter, Jonathan; Baldwin, John J.;
      Kaiser, Bernd; Li, Ge; Merritt, J. Robert; Nelson, Kingsley H., Jr.;
      Schering Corporation, USA; Pharmacopeia, Inc.
 PA
 SO
      PCT Int. Appl., 113 pp.
      CODEN: PIXXD2
 DT
      Patent
 LΑ
      English
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     ICM C07C225-20
     ICS C07C229-42; C07C229-64; C07C237-36; C07C237-44; C07C255-58;
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          C07D207-08; C07D207-16; C07D211-60; C07D213-89; C07D231-38;
          C07D235-06; C07D239-42; C07D249-18; C07D277-28
     28-13 (Heterocyclic Compounds (More Than One Hetero Atom))
CC
     Section cross-reference(s): 1, 25, 27
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     PATENT NO.
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                                                            DATE
    WO 2002076926
PΙ
                      A1
                           20021003
           AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                                          WO 2002-US2888
            CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, HR, HU,
            ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD,
            MG, MK, MN, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SE, SG, SI, SK,
            SL, TJ, TM, TN, TR, TT, TZ, UA, UZ, VN, YU, ZA, ZM, AM, AZ, BY,
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2003097004 PRAI US 2001-265951P US 2002-62006 P 20010202 20020201 os MARPAT 137:279205 GI



Title compds. I; [A = (substituted) aryl, heteroaryl; B = (substituted) AB Ph, benzotriazolyl, benzimidazolyl, hydroxyimidazolyl, hydroxythienyl, hydroxypyrrolyl, etc.], were prepd. Thus, 1-ethoxy-2-phenylamino-1cyclobutene-3,4-dione (prepn. given) and 2-OH-3-[2-(morpholinoethyl)aminocarbonyl]aniline (prepn. given) were refluxed overnight in EtOH to give 34% title compd. (II). I showed CXCR2 receptor binding activity in the range of 1-10000 nM. ST

aminobutenedione prepn CXC chemokine receptor antagonist; butenedione arylamino prepn CXC chemokine receptor antagonist; psoriasis atopic dermatitis asthma arthritis cancer treatment diaminobutenedione Chemokine receptors

ITRL: BSU (Biological study, unclassified); BIOL (Biological study) (CXCR1, antagonists; prepn. of 3,4-diaminobutene-1,2-diones as CXC

chemokine receptor antagonists) Chemokine receptors

IT

RL: BSU (Biological study, unclassified); BIOL (Biological study) (CXCR2, antagonists; prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor antagonists) Intestine, disease

IT

(Crohn's, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor antagonists)

ITSarcoma

(Kaposi's, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor antagonists)

Respiratory distress syndrome ${
m IT}$

(acute, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor antagonists)

ITTransplant rejection

(allotransplant, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor antagonists)

Antiarteriosclerotics IT

(antiatherosclerotics; prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor antagonists)

IT Dermatitis

(atopic, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor antagonists)

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IT
         Stomach, neoplasm
            (carcinoma, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
            chemokine receptor antagonists)
    IT
         Lung, disease
            (chronic obstructive, treatment; prepn. of 3,4-diaminobutene-1,2-diones
            as CXC chemokine receptor antagonists)
        Interleukin 12
   IT
        RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
            (coadministration; prepn. of 3,4-diaminobutene-1,2-diones as CXC
           chemokine receptor antagonists)
   IT
        Eye, disease
           (diabetic retinopathy, treatment; prepn. of 3,4-diaminobutene-1,2-
           diones as CXC chemokine receptor antagonists)
   IT
        Gingiva, disease
           (gingivitis, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
           chemokine receptor antagonists)
   IT
        Kidney, disease
           (glomerulonephritis, treatment; prepn. of 3,4-diaminobutene-1,2-diones
           as CXC chemokine receptor antagonists)
       Transplant and Transplantation
  IT
           (graft-vs.-host reaction, treatment; prepn. of 3,4-diaminobutene-1,2-
          diones as CXC chemokine receptor antagonists)
       Allergy
  IT
          (hypersensitivity, treatment; prepn. of 3,4-diaminobutene-1,2-diones as
          CXC chemokine receptor antagonists)
  IT
       Hepatitis virus
       Human herpesvirus
          (infection treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
          chemokine receptor antagonists)
       Intestine, disease
  IT
          (inflammatory, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
          chemokine receptor antagonists)
      Reperfusion
 IT
          (injury, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
         chemokine receptor antagonists)
      Brain, disease
 IT
     Heart, disease
         (ischemia, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
         chemokine receptor antagonists)
      Eye, disease
 IT
         (macula, degeneration, treatment; prepn. of 3,4-diaminobutene-1,2-
         diones as CXC chemokine receptor antagonists)
      Lung, neoplasm
 IT
         (non-small-cell carcinoma, treatment; prepn. of 3,4-diaminobutene-1,2-
        diones as CXC chemokine receptor antagonists)
     Anti-AIDS agents
 IT
     Anti-Alzheimer's agents
     Antiarthritics
     Antiasthmatics
     Anticoagulants
     Antimalarials
     Antitumor agents
     Antiviral agents
     Human
     Solid phase synthesis
        (prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor
        antagonists)
    Chemokines
IT
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RL: BSU (Biological study, unclassified); BIOL (Biological study)
           (prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor
           antagonists)
   IT
        Eye, disease
           (retinopathy, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
           chemokine receptor antagonists)
       Shock (circulatory collapse)
   IT
           (septic, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
          chemokine receptor antagonists)
  IT
       Brain, disease
          (stroke, treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC
          chemokine receptor antagonists)
       Shock (circulatory collapse)
  IT
          (toxic shock syndrome, treatment; prepn. of 3,4-diaminobutene-1,2-
          diones as CXC chemokine receptor antagonists)
  IT
       Sepsis
          (treatment of gram neg. sepsis; prepn. of 3,4-diaminobutene-1,2-diones
          as CXC chemokine receptor antagonists)
      AIDS (disease)
  IT
      Alzheimer's disease
      Arthritis
      Asthma
      Atherosclerosis
      Eye, disease
      Malaria
      Melanoma
      Neoplasm
      Psoriasis
      Thrombosis
         (treatment; prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine
        receptor antagonists)
 IT
     Intestine, disease
         (ulcerative colitis, treatment; prepn. of 3,4-diaminobutene-1,2-diones
        as CXC chemokine receptor antagonists)
     Interleukin 8 receptors
 IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (.alpha., antagonists; prepn. of 3,4-diaminobutene-1,2-diones as CXC
        chemokine receptor antagonists)
IT
     Interferons
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (.alpha., coadministration; prepn. of 3,4-diaminobutene-1,2-diones as
        CXC chemokine receptor antagonists)
IT
     Interleukin 8 receptors
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (.beta., antagonists; prepn. of 3,4-diaminobutene-1,2-diones as CXC
       chemokine receptor antagonists)
    50-35-1, Thalidomide
IT
                          145-63-1, Suramin 15866-90-7, Col-3
            37270-94-3, Platelet factor 4
                                                                   33069-62-4,
                                           38101-59-6, Im862
    Angiostatin
                  99519-84-3, CAI 114977-28-5, Taxotere 129298-91-5,
                                                                86090-08-6,
    Tnp-470 148717-90-2, Squalamine
                                        154039-60-8, Marimastat
    Cgs27023a 187888-07-9, Endostatin
                                                                  169799-04-6,
    192329-42-3, Ag3340 204005-46-9, Su-5416 212142-18-2, PTK 787
    216974-75-3 252916-29-3, Su-6668 259188-38-0, Bms-275291
                             324740-00-3, Vitaxin
    443913-73-3, Zd-6474
                                                    386211-13-8, Zd-101
   RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
       (coadministration; prepn. of 3,4-diaminobutene-1,2-diones as CXC
      chemokine receptor antagonists)
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                                                                  464912-82-1P
       RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
       (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
          (prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor
         antagonists)
      62-53-3, Benzenamine, reactions
  IT
                                        64-04-0, Benzeneethanamine
      Methanamine, reactions
                               75-04-7, Ethanamine, reactions
                                                                    74-89-5,
      87-62-7
                88-75-5
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      1,2-Benzenediamine, reactions
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        (prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 3,4-diaminobutene-1,2-diones as CXC chemokine receptor antagonists)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

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- IT 55586-26-0

RN 55586-26-0 HCAPLUS

CN Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME)

- L13 ANSWER 5 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN
- AN 2002:539534 HCAPLUS
- DN 137:109285
- TI Preparation of triazolo[4,5-d]pyrimidines as purinergic receptor antagonists
- IN Gillespie, Roger John; Lerpiniere, Joanne; Gaur, Suneel; Bamford, Samantha

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Jayne; Stratton, Gemma Caroline; Leonardi, Stefania; Weiss, Scott Murray
      Vernalis Research Limited, UK
 PA
      PCT Int. Appl., 157 pp.
 SO
      CODEN: PIXXD2
 DT
      Patent
     English
LA
     ICM A61K031-505
IC
     ICS C07D487-04; A61P025-28
     28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
CC
     Section cross-reference(s): 1
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PRAI GB 2001-624
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     MARPAT 137:109285
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The title compds. [I; Rl = H, alkyl, aryl, etc.; R2 = aryl attached via an unsatd. carbon; R3 = H, alkyl, COR5, CO2R7, CONR5R6, CONR4NR5R6, SO2R7; R4-R6 = H, alkyl, aryl; or NR5R6 = heterocyclyl; or where R4-R6 are in a CONR4NR5R6 group, R4 and R5 may be linked to form a heterocyclic group; R7 which the blocking of purine receptors, particularly adenosine receptors and more particularly A2A receptors, may be beneficial, particularly wherein said disorder is a movement disorder such as Parkinson's disease or depression, cognitive or memory impairment, acute or chronic pain, ADHD or narcolepsy, or for neuroprotection, were prepd. Thus, reacting with 2-fluorobenzyl bromide in the presence of NaH in DMF afforded 22% I A2A receptor binding.

triazolopyrimidine prepn purinoceptor antagonist adenosine A2A receptor Parkinsonism; neuroprotectant triazolopyrimidine prepn; cognition enhancer triazolopyrimidine prepn; antidepressant triazolopyrimidine prepn; analgesic triazolopyrimidine prepn; Alzheimer's disease triazolopyrimidine prepn

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IT
        Adenosine receptors
        RL: BSU (Biological study, unclassified); BIOL (Biological study)
           (A2A; prepn. of triazolo[4,5-d]pyrimidines as purinergic receptor
           antagonists)
       Nervous system, disease
   IT
           (Huntington's chorea; prepn. of triazolo[4,5-d]pyrimidines as
          purinergic receptor antagonists)
       Disease, animal
  IT
           (atrophy, progressive pallidal atrophy; prepn. of triazolo[4,5-
          d]pyrimidines as purinergic receptor antagonists)
       Mental disorder
  IT
          (attention deficit hyperactivity disorder; prepn. of
          triazolo[4,5-d]pyrimidines as purinergic receptor antagonists)
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       Brain
          (basal ganglia, treatment of disorders of; prepn. of
          triazolo[4,5-d]pyrimidines as purinergic receptor antagonists)
       Movement disorders
  IT
          (cerebral palsy, progressive supernuclear palsy; prepn. of
          triazolo[4,5-d]pyrimidines as purinergic receptor antagonists)
       Mental disorder
  IT
          (cognitive; prepn. of triazolo[4,5-d]pyrimidines as purinergic receptor
          antagonists)
      Mental disorder
 IT
          (depression; prepn. of triazolo[4,5-d]pyrimidines as purinergic
          receptor antagonists)
      Cognition
 IT
         (disorder; prepn. of triazolo[4,5-d]pyrimidines as purinergic receptor
         antagonists)
      Nervous system, disease
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         (dystonia, Dopa-responsive dystonia-Parkinsonism; prepn. of
         triazolo[4,5-d]pyrimidines as purinergic receptor antagonists)
 IT
      Nervous system, disease
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      Cytoprotective agents
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         (neuroprotectants; prepn. of triazolo[4,5-d]pyrimidines as purinergic
         receptor antagonists)
     Alzheimer's disease
IT
     Analgesics
     Anti-Alzheimer's agents
     Antidepressants
     Antiparkinsonian agents
     Cognition enhancers
     Human
     Nervous system agents
     Pain
     Parkinson's disease
     Purinoceptor antagonists
     Wilson's disease
        (prepn. of triazolo[4,5-d]pyrimidines as purinergic receptor
        antagonists)
IT
     Nervous system, disease
        (spasticity; prepn. of triazolo[4,5-d]pyrimidines as purinergic
        receptor antagonists)
     59-92-7, L-Dopa, biological studies
IT
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RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (in combination with; prepn. of triazolo[4,5-d]pyrimidines as purinergic receptor antagonists) 442906-78-7P IT 442906-82-3P 442907-00-8P 442907-34-8P 442910-16-9P RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (prepn. of triazolo[4,5-d]pyrimidines as purinergic receptor antagonists) 442906-79-8P IT 442906-80-1P 442906-81-2P 442906-84-5P 442906-86-7P 442906-88-9P 442906-90-3P 442906-92-5P 442906-94-7P 442906-96-9P 442906-98-1P 442907-02-0P 442907-04-2P 442907-06-4P 442907-08-6P 442907-10-0P 442907-12-2P 442907-14-4P 442907-16-6P 442907-18-8P 442907-20-2P 442907-22-4P 442907-24-6P 442907-26-8P 442907-28-0P 442907-30-4P 442907-32-6P 442907-36-0P 442907-38-2P 442907-40-6P 442907-42-8P 442907-44-0P 442907-46-2P 442907-48-4P 442907-50-8P 442907-52-0P 442907-54-2P 442907-55-3P 442907-56-4P 442907-57-5P 442907-58-6P 442907-59-7P 442907-60-0P 442907-61-1P 442907-62-2P 442907-63-3P 442907-64-4P 442907-65-5P 442907-66-6P 442907-67-7P 442907-68-8P 442907-69-9P 442907-70-2P 442907-71-3P 442907-72-4P 442907-73-5P 442907-74-6P 442907-75-7P 442907-76-8P 442907-77-9P 442907-78-0P 442907-79-1P 442907-80-4P 442907-81-5P 442907-82-6P 442907-83-7P 442907-84-8P 442907-85-9P 442907-86-0P 442907-87-1P 442907-88-2P 442907-89-3P 442907-90-6P 442907-91-7P 442907-92-8P 442907-93-9P 442907-94-0P 442907-95-1P 442907-96-2P 442907-97-3P 442907-98-4P 442907-99-5P 442908-00-1P 442908-01-2P 442908-02-3P 442908-03-4P 442908-04-5P 442908-05-6P 442908-06-7P 442908-07-8P 442908-08-9P 442908-09-0P 442908-10-3P 442908-11-4P 442908-12-5P 442908-13-6P 442908-14-7P 442908-15-8P 442908-16-9P 442908-17-0P 442908-18-1P 442908-19-2P 442908-20-5P 442908-21-6P 442908-22-7P 442908-23-8P 442908-24-9P 442908-25-0P 442908-26-1P 442908-27-2P 442908-28-3P 442908-29-4P 442908-30-7P 442908-31-8P 442908-32-9P 442908-33-0P 442908-34-1P 442908-36-3P 442908-37-4P 442908-38-5P 442908-40-9P 442908-42-1P 442908-43-2P 442908-44-3P 442908-45-4P 442908-46-5P 442908-47-6P 442908-48-7P 442908-49-8P 442908-50-1P 442908-51-2P 442908-52-3P 442908-53-4P 442908-54-5P 442908-55-6P 442908-56-7P 442908-57-8P 442908-58-9P 442908-59-0P 442908-60-3P 442908-61-4P 442908-62-5P 442908-63-6P 442908-64-7P 442908-65-8P 442908-66-9P 442908-67-0P 442908-68-1P 442908-69-2P 442908-70-5P 442908-71-6P 442908-72-7P 442908-73-8P 442908-74-9P 442908-75-0P 442908-76-1P 442908-77-2P 442908-78-3P 442908-79-4P 442908-80-7P 442908-81-8P 442908-82-9P 442908-83-0P 442908-84-1P 442908-85-2P 442908-86-3P 442908-88-5P 442908-90-9P **442908-92-1P** 442908-94-3P 442908-96-5P 442908-98-7P 442909-00-4P 442909-02-6P 442909-04-8P 442909-05-9P 442909-07-1P 442909-09-3P 442909-11-7P 442909-13-9P 442909-15-1P 442909-17-3P 442909-19-5P 442909-21-9P 442909-23-1P 442909-26-4P 442909-28-6P 442909-30-0P 442909-32-2P 442909-34-4P 442909-36-6P 442909-38-8P 442909-39-9P 442909-41-3P 442909-40-2P 442909-42-4P 442909-43-5P 442909-44-6P 442909-45-7P 442909-46-8P 442909-47-9P 442909-48-0P 442909-49-1P 442909-50-4P 442909-51-5P 442909-52-6P 442909-53-7P 442909-54-8P 442909-55-9P 442909-56-0P 442909-57-1P 442909-58-2P 442909-59-3P 442909-60-6P 442909-61-7P 442909-62-8P 442909-63-9P 442909-64-0P 442909-65-1P 442909-66-2P 442909-67-3P 442909-68-4P 442909-69-5P 442909-71-9P 442909-70-8P 442909-72-0P 442909-73-1P 442909-74-2P 442909-76-4P 442909-75-3P 442909-77-5P 442909-78-6P 442909-79-7P 442909-80-0P 442909-81-1P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

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    3-Hydroxy-4-nitrobenzoic acid
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    933-67-5, 7-Methylindole
                              1068-55-9, Isopropylmagnesium chloride
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                                                              442910-88-5P
    442910-89-6P 442910-90-9P
                                 442910-91-0P
                                                442910-92-1P
                                                              442910-93-2P
                  442910-95-4P
    442910-94-3P
                                 442911-05-9P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
    (Reactant or reagent)
       (prepn. of triazolo[4,5-d]pyrimidines as purinergic receptor
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antagonists)

RE.CNT THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Betti, L; EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY 1999, V34(10), P867 HCAPLUS
- (2) Cocuzza, A; BIOORGANIC & MEDICINAL CHEMISTRY LETTERS 1999, V9(7), P1063 HCAPLUS
- (3) Du Pont Pharm Co; WO 9901439 A 1999 HCAPLUS
- (4) Giovanni, B; WO 9921617 A 1999 HCAPLUS
- IT442908-92-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of triazolo[4,5-d]pyrimidines as purinergic receptor. antagonists)

442908-92-1 HCAPLUS RN

Phenol, 2-amino-5-[[5-amino-7-(2-furanyl)-3H-1,2,3-triazolo[4,5-CNd]pyrimidin-3-yl]methyl]- (9CI) (CA INDEX NAME)

- L13 ANSWER 6 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN
- 2002:409270 HCAPLUS AN
- DN 137:6173
- Novel bicyclic and tricyclic pyrrolidine derivatives as GnRH antagonists ${f T}{f I}$
- Peng, Ge; Gallop, Mark A.; Chernov-Rogan, Tania; Yanofsky, Stephen D.; IN Pelletier, Jeffrey Claude; Green, Daniel Michael
- PAUSA
- U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 633,025. CODEN: USXXCO
- DTPatent
- LĄ English
- ICM A61K031-4188 IC ICS C07D487-14
- 514387000 NCL
- 28-2 (Heterocyclic Compounds (More Than One Hetero Atom)) CC Section cross-reference(s): 1, 13

FAN.CNT 3

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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002065309 WO 2002011732 WO 2002011732	C1	20020530 20020214 20020620	US 2001-860810 WO 2001-US24506	
	HR, HU, LT, LU,	ID, IL, LV, MA,	IN, IS, JP, MD, MG, MK,	BA, BB, BG, BR, BY, DZ, EE, ES, FI, GB, KE, KG, KP, KR, KZ, MN, MW, MX, MZ, NO, TJ, TM, TR, TT, TZ,	GD, GE, GH, GM, LC, LK, LR, LS,

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             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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    MARPAT 137:6173
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Title compds. I [L1, L2 and L3 are independently linking groups; m, n, q AΒ are independently 0 or 1; Y = (H)a and Z = (OH)b, c is an optional single bond, wherein, when c = single bond, a and b are both 0, when c is absent, a and b are both 1; Q = 0 or S; X = N or CH; R1 and R2 are either (un) substituted hydrocarbyl (the same or different), or R1 and R2 are linked to form a $\overline{5}$ - or $\overline{6}$ -membered ring optionally contg. 1-3 heteroatoms (selected from N, O and S); R3 = cyclic structure of 1-3 rings that may befused or linked, wherein 1 or more of the rings maybe arom. and/or heterocyclic; R4, R5, R6, R7 and R8 are independently selected from H, halo, OH, alkyl, alkenyl, alkoxy, etc., and further, when two of R4, R5, R6, R7 and R8 are ortho to each other, they may together form a 5- or 6-membered cyclic structure contg. 0-2 heteroatoms; R9 and R10 = H, halo, OH, alkyl, alkenyl, alkynyl, alkoxy, amino, lower alkyl-substituted amino, nitro, nitrile and carboxyl], their prepn., methods of use and pharmaceutical compns. as antagonists of the GnRH receptor are disclosed. Thus, II was prepd. in seven steps in 25% overall yield from resin bound .alpha.-BOC-.beta.-FMOC-diaminopropionic acid with the bicyclic pyrrolidine core being formed by a zinc catalyzed intramol. cyclization. Evaluation of I for binding inhibition of human GnRH receptors provided IC50 values ranging from 35-1500 nM. ST

pyrrolidine polycyclic prepn GnRH antagonist; bicyclic pyrrolidine prepn GnRH antagonist; GnRH receptor binding inhibition tricyclic pyrrolidine IT

(endometriosis, treatment of; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

ITHuman

> (evaluation of bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists by competitive inhibition of human GnRH receptor in COS-1

ITMammary gland, neoplasm Prostate gland, neoplasm

Uterus, neoplasm

(inhibitors; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

IT Contraceptives

(novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists) Gonadotropin-releasing hormone receptor IT

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists) ITOvary, disease

(polycystic, treatment of; novel bicyclic and tricyclic pyrrolidine

derivs. as GnRH antagonists) Puberty IT (precocious puberty; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists) Antitumor agents IT(sex hormone dependent cancer; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists) 2539-53-9P, Benzaldehyde, 4-ethoxy-3-hydroxy- 5447-02-9P, Benzaldehyde, IT 3,4-bis(phenylmethoxy) - 5703-23-1P, Benzeneacetaldehyde, 3-hydroxy-4-methoxy- 50602-41-0P, Benzeneethanol, 3-hydroxy-4-methoxy-61315-87-5P, Benzaldehyde, 3-hydroxy-4-propoxy-66488-78-6P, Benzaldehyde, 4-butoxy-3-hydroxy- 397874-40-7P, Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-[[(2-nitrophenyl)sulfonyl]amino]-397874-41-8P, Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-[[(2nitrophenyl)sulfonyl]amino]-, methyl ester 397874-42-9P, Alanine, 3-[[(2-nitrophenyl)sulfonyl]-2-propenylamino]-, methyl ester 397874-43-0P, Pyrrolo[3,4-b]pyrrole-6a(1H)-carboxylic acid, 2-[4-(dimethylamino)-1-naphthalenyl]hexahydro-5-[(3-nitrophenyl)sulfonyl]-, methyl ester, (2R, 3aR, 6aR) - rel - 397874-44-1P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-8-[(3-nitrophenyl)sulfonyl]-, (5R,6aR,9aR)-rel- 397874-45-2P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R, 6aR, 9aR) - rel- 397874-46-3P, Pyrrolo[3, 4-b]pyrrole-6a(1H) - carboxylic acid, 2-(4-azido-1-naphthalenyl)hexahydro-5-[(3-nitrophenyl)sulfonyl]-, 397874-47-4P, 1Hmethyl ester, (2R, 3aR, 6aR) - rel-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-(4-azido-1-naphthalenyl)hexahydro-2-[2-(4-morpholinyl)ethyl]-8-[(3nitrophenyl)sulfonyl]-, (5R,6aR,9aR)-rel- 397874-48-5P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-(4-azido-1-naphthalenyl)hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R, 6aR, 9aR) -rel-397874-49-6P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2c]imidazole-1,3(2H)-dione, 5-(4-azido-1-naphthalenyl)hexahydro-8-[(3hydroxy-4-methoxyphenyl)methyl]-2-[2-(4-morpholinyl)ethyl]-, 397874-50-9P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-(5R, 6aR, 9aR) -relc]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-8-[(4-methoxy-3-nitrophenyl)methyl]-2-[2-(4-morpholinyl)ethyl]-, (5R, 6aR, 9aR) -rel- 397874-51-0P, 1H-Pyrrolo[3', 4':2,3]pyrrolo[1,2c]imidazole-1,3(2H)-dione, 8-[[3,4-bis(phenylmethoxy)phenyl]methyl]-5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, 397874-52-1P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-(5R, 6aR, 9aR) - relc]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-8-[[4-nitro-3-(phenylmethoxy)phenyl]methyl]-, (5R, 6aR, 9aR) -rel- 397874-53-2P, Pyrrolo[3, 4-b]pyrrole-6a(1H) -carboxylic acid, hexahydro-5-[(3-nitrophenyl)sulfonyl]-2-(4-quinolinyl)-, methyl 397874-54-3P, Pyrrolo[3,4-b]pyrrole-6a(1H)ester, (2R, 3aR, 6aR) - relcarboxylic acid, hexahydro-1-[2-(4-morpholinyl)ethyl]-5-[(3nitrophenyl)sulfonyl]-2-(4-quinolinyl)-, methyl ester, (2R,3aR,6aR)-rel-397874-55-4P, Pyrrolo[3,4-b]pyrrole-6a(1H)-carboxylic acid, hexahydro-1-[2-(4-morpholinyl)ethyl]-2-(4-quinolinyl)-, methyl ester, 397874-56-5P, Pyrrolo[3,4-b]pyrrole-6a(1H)-carboxylic (2R, 3aR, 6aR) -relacid, hexahydro-2-(4-isoquinolinyl)-5-[(3-nitrophenyl)sulfonyl]-, methyl ester, (2R, 3aR, 6aR) -rel-397874-57-6P, Pyrrolo[3,4-b]pyrrole-6a(1H)carboxylic acid, hexahydro-2-(4-isoquinolinyl)-1-[2-(4-morpholinyl)ethyl]-5-[(3-nitrophenyl)sulfonyl]-, methyl ester, (2R, 3aR, 6aR)-rel-397874-58-7P, Pyrrolo[3,4-b]pyrrole-6a(1H)-carboxylic acid, hexahydro-2-(4-isoquinolinyl)-1-[2-(4-morpholinyl)ethyl]-, methyl ester,

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(2R, 3aR, 6aR) - rel-
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
        (intermediate; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH
        antagonists)
     100-10-7, 4-Dimethylaminobenzaldehyde
IT
                                             100-74-3, N-Ethylmorpholine
     106-31-0, Butyric anhydride
                                  107-08-4, 1-Iodopropane
                                                             107-18-6, Allylic
     alcohol, reactions
                          108-24-7, Acetic anhydride
     3-Ethoxy-4-hydroxybenzaldehyde
                                      123-62-6, Propionic anhydride
                                                                      139-85-5,
     3,4-Dihydroxybenzaldehyde 140-31-8, 4-(2-Aminoethyl)piperazine
     407-25-0, Trifluoroacetic anhydride 542-69-8, 1-Iodobutane
                                                                     621-59-0,
     Benzaldehyde, 3-hydroxy-4-methoxy-
                                          1131-94-8, Benzeneacetic acid,
     3-hydroxy-4-methoxy- 1694-92-4, 2-Nitrobenzenesulfonyl chloride
     1971-81-9, 1-Naphthalenecarboxaldehyde, 4-(dimethylamino)-
     4-Morpholineethanamine
                              2973-59-3, Benzaldehyde, 2-bromo-5-hydroxy-4-
     methoxy-
                2973-75-3, Benzaldehyde, 2,3-dibromo-4-hydroxy-5-methoxy-
     4363-93-3, 4-Quinoline carboxaldehyde 13258-63-4, 4-(2-
     Aminoethyl)pyridine
                           13669-42-6, Quinoline-3-carboxaldehyde
                                                                    31680-08-7,
     4-Methoxy-3-nitrobenzaldehyde 123316-85-8, 4-Azido-1-naphthaldehyde
     128618-91-7, Benzaldehyde, 4-nitro-3-(phenylmethoxy)-
    Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-[[(9H-fluoren-9-
    ylmethoxy) carbonyl] amino] -
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)
    397874-25-8P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
IT
    8-[(3-amino-4-methoxyphenyl)methyl]-5-[4-(dimethylamino)-1-
    naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-
    397874-32-7P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
    8-[[4-amino-3-(phenylmethoxy)phenyl]methyl]-5-[4-(dimethylamino)-1-
    naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-
    397874-33-8P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-
    dione, 8-[(4-amino-3-hydroxyphenyl)methyl]-5-[4-(dimethylamino)-1-
    naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
    (Preparation); RACT (Reactant or reagent); USES (Uses)
       (target compd.; novel bicyclic and tricyclic pyrrolidine derivs. as
       GnRH antagonists)
    397874-11-2P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
    5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-8-[(3-hydroxy-4-
    methoxyphenyl)methyl]-2-[2-(4-morpholinyl)ethyl]-, (5R, 6aR, 9aR)-rel-
    397874-12-3P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
    5-[4-(dimethylamino)-1-naphthalenyl]-8-[(3-ethoxy-4-
    hydroxyphenyl)methyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-,
    (5R, 6aR, 9aR) -rel-
                        397874-13-4P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-
    c]imidazole-1,3(2H)-dione, 8-[(2,3-dibromo-4-hydroxy-5-
   methoxyphenyl)methyl]-5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-
    (4-morpholinyl)ethyl]-, (5R, 6aR, 9aR)-rel- 397874-14-5P,
   1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
   8-[(2-bromo-5-hydroxy-4-methoxyphenyl)methyl]-5-[4-(dimethylamino)-1-
   naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-
   397874-15-6P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
   hexahydro-8-[(3-hydroxy-4-methoxyphenyl)methyl]-5-(4-methoxy-1-
   naphthalenyl)-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-
   397874-16-7P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
   5-[4-(dimethylamino)phenyl]hexahydro-8-[(3-hydroxy-4-methoxyphenyl)methyl]-
   2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel- 397874-17-8P,
   1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
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5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-8-[(3-hydroxy-4methoxyphenyl)methyl]-2-[2-(1-piperazinyl)ethyl]-, (5R,6aR,9aR)-rel-397874-18-9P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-8-[(3-hydroxy-4methoxyphenyl)methyl]-2-[2-(4-pyridinyl)ethyl]-, (5R,6aR,9aR)-rel-397874-19-0P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-8-[(3-hydroxy-4methoxyphenyl)acetyl]-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-397874-20-3P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-8-[2-(3-hydroxy-4methoxyphenyl)ethyl]-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-397874-21-4P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-(4-amino-1-naphthalenyl)hexahydro-8-[(3-hydroxy-4-methoxyphenyl)methyl]-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel- 397874-22-5P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]-8-[(4-ethoxy-3hydroxyphenyl)methyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R, 6aR, 9aR) - rel 397874-23-6P, 1H-Pyrrolo[3', 4':2,3]pyrrolo[1,2c]imidazole-1,3(2H)-dione, 5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-8-[(3-hydroxy-4-propoxyphenyl)methyl]-2-[2-(4-morpholinyl)ethyl]-, (5R, 6aR, 9aR) -rel-397874-24-7P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2c]imidazole-1,3(2H)-dione, 8-[(4-butoxy-3-hydroxyphenyl)methyl]-5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R, 6aR, 9aR) -rel- 397874-26-9P, Acetamide, N-[5-[[(5R, 6aR, 9aR) -5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-1,3dioxo-1H-pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazol-8(9H)-yl]methyl]-2methoxyphenyl]-, rel- 397874-27-0P, Acetamide, N-[5-[[(5R,6aR,9aR)-5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-1,3dioxo-1H-pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazol-8(9H)-yl]methyl]-2methoxyphenyl]-2,2,2-trifluoro-, rel- 397874-28-1P, Methanesulfonamide, N-[5-[[(5R,6aR,9aR)-5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4morpholinyl)ethyl]-1,3-dioxo-1H-pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazol-8(9H)-yl]methyl]-2-methoxyphenyl]-, rel- 397874-29-2P, Butanamide, N-[5-[[(5R,6aR,9aR)-5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4morpholinyl)ethyl]-1,3-dioxo-1H-pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazol-8(9H)-yl]methyl]-2-methoxyphenyl]-, rel- 397874-30-5P, Propanamide, N-[5-[[(5R, 6aR, 9aR)-5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4morpholinyl)ethyl]-1,3-dioxo-1H-pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazol-8(9H)-yl]methyl]-2-methoxyphenyl]-, rel- 397874-31-6P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 8-[(3,4-dihydroxyphenyl)methyl]-5-[4-(dimethylamino)-1naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-397874-34-9P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, 8-[[4-(dimethylamino)-3-hydroxyphenyl]methyl]-5-[4-(dimethylamino)-1naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-397874-35-0P, Acetamide, N-[4-[[(5R,6aR,9aR)-5-[4-(dimethylamino)-1naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-1,3-dioxo-1Hpyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazol-8(9H)-yl]methyl]-2-(phenylmethoxy)phenyl]-, rel- 397874-36-1P, Methanesulfonamide, N-[4-[[(5R,6aR,9aR)-5-[4-(dimethylamino)-1-naphthalenyl]hexahydro-2-[2-(4morpholinyl)ethyl]-1,3-dioxo-1H-pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazol-8(9H)-yl]methyl]-2-(phenylmethoxy)phenyl]-, rel-397874-37-2P, Acetamide, N-[4-[[(5R,6aR,9aR)-5-[4-(dimethylamino)-1naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-1,3-dioxo-1Hpyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazol-8(9H)-yl]methyl]-2-(phenylmethoxy)phenyl]-2,2,2-trifluoro-, rel- 397874-38-3P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, hexahydro-8-[(3-hydroxy-4-methoxyphenyl)methyl]-2-[2-(4-morpholinyl)ethyl]-

5-(4-quinolinyl)-, (5R, 6aR, 9aR)-rel-397874-39-4P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, hexahydro-8-[(3-hydroxy-4-methoxyphenyl)methyl]-5-(4-isoquinolinyl)-2-[2-(4-morpholinyl)ethyl]-, (5R, 6aR, 9aR)-rel-RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compd.; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

397874-33-8P, 1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-ITdione, 8-[(4-amino-3-hydroxyphenyl)methyl]-5-[4-(dimethylamino)-1naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(target compd.; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

397874-33-8 HCAPLUS RN

1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione, CN 8-[(4-amino-3-hydroxyphenyl)methyl]-5-[4-(dimethylamino)-1naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-(CA INDEX NAME) (9CI)

Relative stereochemistry.

PAGE 1-A

PAGE 2-A

NMe₂

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ANSWER 7 OF 40 HCAPLUS
  L13
                                COPYRIGHT 2003 ACS on STN
       2002:122794 HCAPLUS
  AN
      136:167362
  DN
      Novel bicyclic and tricyclic pyrrolidine derivatives as GnRH antagonists
  TI
      Peng, Ge; Gallop, Mark A.; Chernov-Rogan, Tania; Yanovsky, Stephen;
  IN
      Pelletier, Jeffrey Claude; Green, Daniel Michael
      Glaxo Group Limited, UK
 PA
      PCT Int. Appl., 118 pp.
 SO
      CODEN: PIXXD2
 DT
      Patent
 LA
      English
      ICM A61K031-535
 IC
      ICS A61K043-60; C07D211-78; C07D413-00
      28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
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      Section cross-reference(s): 1, 13
 FAN.CNT 3
      PATENT NO.
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                             DATE
                                            APPLICATION NO.
     WO 2002011732
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                        A1
                             20020214
                                            WO 2001-US24506
                                                              20010803
     WO 2002011732
                             20020620
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                                            US 2001-860810
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                                                             20010518
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    US 1999-147233P
                            19990804
                       Р.
     WO 2001-US24506
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                       W
    MARPAT 136:167362
OS
GI
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- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- Title compds. I [L1, L2 and L3 are independently linking groups; m, n, q are independently 0 or 1; Y = (H)a and Z = (OH)b, c is an optional single bond, wherein, when c = single bond, a and b are both 0, when c is absent, (un) substituted hydrocarbyl (the same or CH; R1 and R2 are either linked to form a 5- or 6-membered ring optionally contg. 1-3 heteroatoms (selected from N, O and S); R3 = cyclic structure of 1-3 rings that may be heterocyclic; R4, R5, R6, R7 and R8 are independently selected from H, R6, R7 and R8 are ortho to each other, they may together form a 5- or OH, alkyl, alkenyl, alkoxy, etc., and further, when two of R4, R5, 6-membered cyclic structure contg. 0-2 heteroatoms; R9 and R10 = H, halo, OH, alkyl, alkenyl, alkoxy, amino, lower alkyl-substituted amino,

nitro, nitrile and carboxyl], their prepn., methods of use and pharmaceutical compns. as antagonists of the GnRH receptor are disclosed. Thus, II was prepd. in seven steps in 25% overall yield from resin bound .alpha.-BOC-.beta.-FMOC-diaminopropionic acid with the bicyclic pyrrolidine core being formed by a zinc catalyzed intramol. cyclization. Evaluation of I for binding inhibition of human GnRH receptors provided IC50 values ranging from 35-1500 nM.

pyrrolidine polycyclic prepn GnRH antagonist; bicyclic pyrrolidine prepn ST GnRH antagonist; GnRH receptor binding inhibition tricyclic pyrrolidine

Uterus, disease IT

> (endometriosis, treatment of; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

IT Human

> (evaluation of bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists by competitive inhibition of human GnRH receptor in COS-1 cell membranes)

IT Uterus, neoplasm

> (inhibitors, treatment of; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

Antitumor agents IT

> (mammary gland, treatment of; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

Mammary gland IT

Prostate gland.

(neoplasm, inhibitors, treatment of; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

Contraceptives IT

(novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

Gonadotropin-releasing hormone receptor IT

RL: BSU (Biological study, unclassified); BIOL (Biological study) (novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

IT Ovary, disease

> (polycystic, treatment of; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

IT Puberty

(precocious puberty; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

Antitumor agents IT

(prostate gland, treatment of; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

Antitumor agents IT

(sex hormone dependent cancer; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

Antitumor agents IT

(uterus, treatment of; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

2539-53-9P 5447-02-9P IT5703-23-1P 50602-41-0P 61315-87-5P 66488-78-6P 397874-40-7P 397874-41-8P 397874-42-9P 397874-43-0P 397874-44-1P 397874-45-2P 397874-46-3P 397874-47-4P 397874-48-5P 397874-49-6P 397874-50-9P 397874-51-0P 397874-52-1P 397874-53-2P 397874-54-3P 397874-55-4P 397874-56-5P 397874-57-6P 397874-58-7P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; novel bicyclic and tricyclic pyrrolidine derivs. as GnRH antagonists)

100-10-7, 4-Dimethylaminobenzaldehyde 100-74-3, N-Ethylmorpholine IT 106-31-0, Butyric anhydride 107-08-4, 1-Iodopropane 107-18-6, Allylic alcohol, reactions 108-24-7, Acetic anhydride 121-32-4,

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3-Ethoxy-4-hydroxybenzaldehyde 123-62-6, Propionic anhydride
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      3,4-Dihydroxybenzaldehyde 140-31-8, 4-(2-Aminoethyl)piperazine
      407-25-0, Trifluoroacetic anhydride 542-69-8, 1-Iodobutane
      1131-94-8 1694-92-4, 2-Nitrobenzenesulfonyl chloride
                                                              1971-81-9
      2038-03-1, 4-Morpholineethanamine
                                         2973-59-3
                                                     2973-75-3
                                                                 4363-93-3,
      4-Quinoline carboxaldehyde 13258-63-4, 4-(2-Aminoethyl)pyridine
      13669-42-6, Quinoline-3-carboxaldehyde
                                              31680-08-7, 4-Methoxy-3-
      nitrobenzaldehyde
                         123316-85-8, 4-Azido-1-naphthaldehyde
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      159002-16-1
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      (Preparation); RACT (Reactant or reagent); USES (Uses)
         (target compd.; novel bicyclic and tricyclic pyrrolidine derivs. as
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     397874-39-4P
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     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (target compd.; novel bicyclic and tricyclic pyrrolidine derivs. as
        GnRH antagonists)
RE.CNT
              THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Goulet; US 5756507 A 1998 HCAPLUS
(2) Peng, G; Book of Abstracts, 216th ACS Nat'l Mtg, CAPLUS 1998:530632 1998
(3) Peng, G; J Org Chem 1999, V64, P8342 HCAPLUS
    397874-33-8P
IT
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (target compd.; novel bicyclic and tricyclic pyrrolidine derivs. as
       GnRH antagonists)
    397874-33-8 HCAPLUS
RN
    1H-Pyrrolo[3',4':2,3]pyrrolo[1,2-c]imidazole-1,3(2H)-dione,
CN
    8-[(4-amino-3-hydroxyphenyl)methyl]-5-[4-(dimethylamino)-1-
    naphthalenyl]hexahydro-2-[2-(4-morpholinyl)ethyl]-, (5R,6aR,9aR)-rel-
    (9CI) (CA INDEX NAME)
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Relative stereochemistry.

PAGE 2-A

NMe₂

ANSWER 8 OF 40 L13 HCAPLUS COPYRIGHT 2003 ACS on STN

2001:886032 AN HCAPLUS

136:19932 DN

Preparation of dianilino squarates as IL-8 receptor antagonists TI

Palovich, Michael R.; McCleland, Brent; Bi, Guangping; Werner, Michelle; IN Widdowson, Katherine L.

Smithkline Beecham Corporation, USA PA

SO PCT Int. Appl., 36 pp. CODEN: PIXXD2

DTPatent

LA English

IC ICM C07C211-00

25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC Section cross-reference(s): 1

FAN.CNT 1

PATENT NO. DATE KIND APPLICATION NO. DATE WO 2001092202 PI20011206 A1 WO 2001-US17678 20010530 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,

RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG EP 1284956 20030226 **A1** EP 2001-944205 20010530 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR NO 2002005754 20021129 Α NO 2002-5754 20021129 PRAI US 2000-207911P P 20000530 WO 2001-US17678 W 20010530 MARPAT 136:19932 OS GI

The title compds. [I; Rl = H, halo, NO2, etc.; Y = H, halo, NO2, etc.; n = 1-5; m = 1-4], useful in the treatment of disease states mediated by the chemokine, Interleukin-8 (IL-8), were prepd. Thus, reacting 3-ethoxy-4-(2-hydroxyanilino)-cyclobut-3-ene-1,2-dione with 2,3-dichloroaniline in the presence of DMSO in PhMe afforded I [Rl = H; Y = 2,3-Cl2]. All of the exemplified compds. I showed IC50 from about 45 to about <1 .mu.g/mL in the permissive models for IL-8 receptor inhibition. Some of exemplified compds. I were also found to be inhibitors of Gro-.alpha. binding at about the same level.

ST dianilino squarate prepn interleukin IL8 receptor antagonist; cyclobutenedione dianilino prepn interleukin IL8 receptor antagonist; Gro alpha chemokine dianilino squarate prepn; melanoma growth stimulating activity alpha dianilino squarate prepn

IT Interleukin 8 receptors

Melanoma growth-stimulating activity-.alpha.

Ι

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(prepn. of dianilino squarates as IL-8 receptor antagonists)

IT Brain, disease

(trauma; prepn. of dianilino squarates as IL-8 receptor antagonists) 358618-10-7P 358618-12-9P IT 358618-14-1P 358618-16-3P 378247-94-0P 378247-95-1P 378247-96-2P 378247-97-3P 378247-98-4P 378247-99-5P 378248-00-1P 378248-01-2P 378248-02-3P 378248-03-4P 378248-04-5P 378248-05-6P 378248-06-7P 378248-07-8P 378248-08-9P 378248-09-0P 378248-11-4P 378248-12-5P 378248-13-6P 378248-14-7P 378248-15-8P 378248-17-0P 378248-16-9P 378248-18-1P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of dianilino squarates as IL-8 receptor antagonists) 87-59-2, 2,3-Dimethylaniline 87-60-5, 3-Chloro-2-methylaniline 90-04-0, 2-Methoxyaniline 90-41-5, 2-Aminobiphenyl 95-51-2, 2-Chloroaniline 95-53-4, 2-Methylaniline, reactions 578-54-1,

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2-Ethylaniline
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                                                      5231-87-8,
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     (Reactant or reagent)
        (prepn. of dianilino squarates as IL-8 receptor antagonists)
RE.CNT
              THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Chen; Hecheng Huaxue, CAPLUS 1999:79153 1998, V6(4), P383 HCAPLUS
     55586-26-0
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. of dianilino squarates as IL-8 receptor antagonists)
     55586-26-0 HCAPLUS
RN
    Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME)
CN
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ANSWER 9 OF 40 HCAPLUS
L13
                               COPYRIGHT 2003 ACS on STN
     2001:521916 HCAPLUS
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     135:107152
DN
     Preparation of N,N'-diphenyl ureas as IL-8 receptor antagonists
{	t TI}
     Widdowson, Katherine Louisa; Veber, Daniel Frank; Jurewicz, Anthony
IN
     Joseph; Hertzberg, Robert Philip; Rutledge, Melvin Clarence, Jr.
     Smithkline Beecham Corp., USA
PA
     U.S., 51 pp., Cont.-in-part of U.S. 58,86,044.
     CODEN: USXXAM
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     Patent
     English
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     ICM A61K031-275
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                                           APPLICATION NO.
                                                            DATE
    US 6262113
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    US 5886044
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IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,

MR, NE, SN, TD, TG US 2002128321 20020912 **A**1 US 2001-871076 PRAI US 1996-641990 20010531 19960320 A2 WO 1996-US13632 19960821 W US 1995-390260 B2 19950217 WO 1996-US2260 19960216 Α US 1998-125279 19980814 **A3** OS MARPAT 135:107152 GI

$$\begin{bmatrix} Y \end{bmatrix}_{n} \begin{bmatrix} X \\ H \end{bmatrix}_{n} \begin{bmatrix} X \\ H \end{bmatrix}_{m} \begin{bmatrix} X^{1}H \end{bmatrix}_{m}$$

The title compds. [I; X = 0; X1 = 0, S; R1 = H, halo, NO2, etc.; two R1 AΒ moieties together may form O(CH2)sO, 5-6 membered unsatd. ring; s = 1-3; Y = H, halo, NO2, etc.; two Y moieties together may form O(CH2)sO, 5-6 membered unsatd. ring; n, m = 1-3], useful for treating a chemokine mediated disease, wherein the chemokine is one which binds to an IL-8 .alpha. or .beta. receptor, were prepd. Thus, reacting Me 4-amino-3-hydroxybenzoate with Ph isocyanate afforded 90% I [X = O; R = OH; R1 = 4-CO2Me; m = 1; Y = H]. All of the exemplified compds. I showed an IC50 from about 45 to about < 1 .mu.g/mL against IL-8 receptor binding. All of these compds. were also found to be inhibitors of Gro-.alpha. binding at about the same level. ST

urea phenyl prepn interleukin receptor antagonist gro alpha inhibitor; melanoma growth stimulating activity alpha inhibitor urea phenyl prepn IT

Melanoma growth-stimulating activity-.alpha.

RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)

(Gro .alpha.; prepn. of N,N'-diphenyl ureas as IL-8 receptor antagonists)

Interleukin 8 receptors

RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL

(prepn. of N, N'-diphenyl ureas as IL-8 receptor antagonists) 160383-79-9P 182497-99-0P IT 182498-47-1P 182498-79-9P 182499-02-1P 182498-99-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

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RL: BAC (Biological activity or effector, except adverse); BSU (Biological
                                                             350044-81-4P
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
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62-53-3, Aniline, reactions
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88-67-5, 2-Iodobenzoic acid
                               90-43-7, 2-Phenylphenol
                                                         91-93-0
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o-Phenylenediamine, reactions
                                 95-55-6, 2-Aminophenol
                                                          98-09-9,
Phenylsulfonyl chloride
                          98-17-9
                                    99-56-9, 4-Nitro-1,2-phenylenediamine
99-57-0, 5-Nitro-2-hydroxyaniline
                                    100-46-9, Benzylamine, reactions
103-71-9, Phenyl isocyanate, reactions
                                         106-40-1, 4-Bromoaniline
116-63-2, 1-Amino-2-hydroxy-4-naphthalenesulfonic acid
           121-51-7, 3-Nitrobenzenesulfonyl chloride
                                                       121-60-8,
4-Acetamidophenylsulfonyl chloride 121-88-0, 2-Amino-5-nitrophenol
137-07-5, 2-Aminothiophenol
                              274-09-9, 1,3-Benzodioxole
4-Bromo-2-fluoro-6-nitrophenol
                                 329-01-1, 3-Trifluoromethylphenyl
isocyanate
             385-01-3, 3-Fluoro-2-nitrophenol 394-31-0,
2-Amino-5-hydroxybenzoic acid 394-33-2, 4-Fluoro-2-nitrophenol
400-98-6, 4-Amino-3-nitrobenzotrifluoride
                                            400-99-7, 4-Trifluoromethyl-2-
nitrophenol 444-30-4, 2-Trifluoromethylphenol
                                                  446-36-6,
5-Fluoro-2-nitrophenol 534-85-0, 2-Anilinoaniline
2-Hydroxy-3-aminobenzoic acid 576-24-9, 2,3-Dichlorophenol
                                                      570-23-0,
3-Phenylphenol 603-87-2, 2-Hydroxy-3-nitroaniline
                                                      609-89-2,
4,6-Dichloro-2-nitrophenol 611-20-1, 2-Cyanophenol
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614-68-6, 2-Methylphenyl isocyanate 615-36-1, 2-Bromoaniline
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  (trifluoromethyl)benzenesulfonyl chloride 873-62-1, 3-Cyanophenol
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  1939-99-7, Benzylsulfonyl chloride 2237-30-1, 3-Cyanoaniline
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              2374-03-0, 3-Hydroxy-4-aminobenzoic acid
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  2834-92-6, 1-Amino-2-hydroxynaphthalene 2835-98-5, 2-Hydroxy-4-
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  2-Chlorophenyl isocyanate 3320-86-3, 2-Nitrophenyl isocyanate
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  chloride
            16744-98-2, 2-Fluorophenyl isocyanate
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 2-Phenylphenyl isocyanate 17573-92-1, 3-Methoxythiophene
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 3-Chloro-2-nitrophenol
                         18493-15-7 18704-37-5, 8-Quinolinylsulfonyl
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 21286-54-4
              23095-31-0, 3,4-Dimethoxyphenylsulfonyl chloride
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 isocyanate 41195-90-8, 2,3-Dichlorophenyl isocyanate
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                                                        43115-40-8,
 isocyanate
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 4-amino-3-hydroxybenzoate 65295-69-4, 2,6-Difluorophenyl isocyanate
 69812-29-9, 2-Acetamido-4-methyl-5-thiazolesulfonyl chloride
 2,3-Difluoro-6-nitrophenol 99968-81-7, 3-Iodo-2-hydroxyaniline
 126714-85-0, 2,3-Dichlorothiophene-5-sulfonyl chloride
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 182500-26-1, 2-Trifluoromethoxyphenyl isocyanate
 2-Amino-5,6-diphenylphenol
                             182500-29-4
                                          182500-30-7,
 3,5,6-Trifluoro-2-hydroxyaniline
                                  182500-31-8, 4-Trifluoromethyl-3-fluoro-
 2-hydroxyaniline 183513-64-6, 2-Chloro-3-methoxyphenyl isocyanate
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    (prepn. of N,N'-diphenyl ureas as IL-8 receptor antagonists)
399-97-3P, 2-Amino-4-fluorophenol 402-17-5P, 2-Nitro-5-
trifluoromethylphenol
                       454-81-9P, 2-Amino-4-trifluoromethylphenol
454-82-0P, 2-Amino-5-trifluoromethylphenol
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2-Amino-4,6-dichlorophenol
                            1214-44-4P 1548-62-5P, 2-Nitro-6-
trifluoromethylphenol
                       4291-30-9P, 2-Nitro-6-phenylphenol
2-Amino-5-phenylphenol 5768-39-8P, 2,3-Methylenedioxybenzoic acid
7256-03-3P, 2-Amino-1-hydroxyfluorene 14543-43-2P, 2-Amino-4-cyanophenol
18062-89-0P, 2-Nitro-5-phenylphenol 18495-15-3P, 2-Nitro-5-cyanophenol
28165-60-8P, 2-Nitro-5,6-dichlorophenol
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55586-26-0P, 2-Amino-5-cyanophenol 56962-00-6P,
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87376-34-9P 92554-96-6P 101664-28-2P, 2-Nitro-5-ethylphenol
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115023-64-8P, 2-Nitro-6-n-propylphenol 115023-65-9P,
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                 10/1/03
                            Page 39
2-Amino-6-n-propylphenol
116278-69-4P, 2-Amino-5,6-dichlorophenol
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115551-33-2P, 2-Hydroxy-3,4-difluoroaniline 139729-85-4P, 2-Amino-5-isopropylphenol 152998-95-3P 153506-06-0P, 2-Nitro-5-isopropylphenol 182499-74-7P, 2-(tert-Butyldimethylsilyloxy)-4nitroaniline 182499-76-9P 182499-78-1P 182499-79-2P

182499-80-5P 182499-81-6P 182499-82-7P 182499-83-8P 182499-84-9P 182499-85-0P 182499-86-1P 182499-87-2P 182499-88-3P

182499-89-4P, 2-Amino-4-bromo-6-fluorophenol 182499-90-7P, 2-Amino-5-ethylphenol 182499-91-8P, 2-Nitro-5-methyl-6-bromophenol

182499-92-9P, 2-Nitro-5-methyl-6-cyanophenol

182499-93-0P, 2-Amino-5-methyl-6cyanophenol 182499-94-1P, 3-Hydroxy-4-nitrobenzophenone 182499-95-2P, 3-Nitro-2-hydroxybenzophenone 182499-96-3P, 3-Amino-2-

hydroxybenzophenone 182499-97-4P, 2-Benzyloxy-6-nitrophenol

182499-98-5P, 2-Amino-6-benzyloxyphenol 182499-99-6P 182500-00-1P 182500-01-2P 182500-02-3P

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182500-14-7P 182500-15-8P 182500-16-9P 182500-17-0P 182500-18-1P 182500-19-2P 182500-21-6P 182500-20-5P 182500-22-7P 182500-23-8P 182500-24-9P 182500-25-0P 182700-32-9P 182700-33-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N, N'-diphenyl ureas as IL-8 receptor antagonists) RE.CNT THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD 57 RE

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- 55586-26-0P, 2-Amino-5-cyanophenol
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 - (prepn. of N,N'-diphenyl ureas as IL-8 receptor antagonists)
- 55586-26-0 HCAPLUS RN
- Benzonitrile, 4-amino-3-hydroxy- (9CI) CN (CA INDEX NAME)

- ANSWER 10 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13
- 2001:177295 HCAPLUS AN
- DN 135:45963
- A new intramolecular migration of the imino group of O-aryl ketoximes to ${ t TI}$ the aryl group under the Beckmann condition AU
- Kikugawa, Y.; Tsuji, C.; Miyazawa, E.; Sakamoto, T. CS
- Faculty of Pharmaceutical Sciences, Josai University, Sakado, Saitama, SO
- Tetrahedron Letters (2001), 42(12), 2337-2339 CODEN: TELEAY; ISSN: 0040-4039
- PBElsevier Science Ltd.
- DTJournal
- English LA
- 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC
- OS
- ZrCl4-mediated decompn. of O-aryl ketoximes in C6H6 leads to AB regioselective intramol. migration of the imino group from the O to the

- HARDEE 10/052967 10/1/03 Page 41 ortho position of the aryl group via electron-deficient N intermediates. aryl ketoxime imino group migration Beckmann; phenolic amine prepn STPhenols, preparation ΙT RL: SPN (Synthetic preparation); PREP (Preparation) (amino; intramol. migration of imino group of O-aryl ketoximes to aryl group under Beckmann condition) Functional groups IT (imino group; intramol. migration of imino group of O-aryl ketoximes to aryl group under Beckmann condition) Beckmann rearrangement IT (intramol. migration of imino group of O-aryl ketoximes to aryl group under Beckmann condition) IT Ketoximes RL: RCT (Reactant); RACT (Reactant or reagent) (intramol. migration of imino group of O-aryl ketoximes to aryl group under Beckmann condition) Amines, preparation IT RL: SPN (Synthetic preparation); PREP (Preparation) (phenolic; intramol. migration of imino group of O-aryl ketoximes to aryl group under Beckmann condition) 13130-15-9 13267-51-1 ${f IT}$ 16237-96-0 29127-87-5 32220-22-7 61694-14-2 344614-93-3 344614-94-4 344614-95-5 344614-97-7 344614-98-8 344614-99-9 344614-96-6 344615-00-5 RL: RCT (Reactant); RACT (Reactant or reagent) 344615-01-6 (intramol. migration of imino group of O-aryl ketoximes to aryl group under Beckmann condition) 95-55-6P IT95-84-1P 95-85-2P 527-62-8P 574-45-8P 767-00-0P, 4-Cyanophenol 873-62-1P, 3-Cyanophenol 6358-15-2P 14543-43-2P 28165-50-6P **55586-26-0P** 75729-97-4P 109810-25-5P 211172-52-0P 344615-02-7P 344615-03-8P 344615-04-9P 344615-06-1P 344615-05-0P 344765-01-1P RL: SPN (Synthetic preparation); PREP (Preparation)
- (intramol. migration of imino group of O-aryl ketoximes to aryl group under Beckmann condition) RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD RE
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- 55586-26-0P
 - RL: SPN (Synthetic preparation); PREP (Preparation) (intramol. migration of imino group of O-aryl ketoximes to aryl group under Beckmann condition)
- 55586-26-0 HCAPLUS RN
- Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

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ANSWER 11 OF 40 HCAPLUS
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                                COPYRIGHT 2003 ACS on STN
       2001:152525 HCAPLUS
  AN
       134:212695
  DN
      Drug conjugates comprising vector-linker-pharmacophore and methods of
  TI
       designing the same
      Brenner, Sydney; Goelet, Philip; Stackhouse, Joseph; Millward, Steven W.
  IN
  PA
      PCT Int. Appl., 196 pp.
  SO
      CODEN: PIXXD2
 DT
      Patent
 LΑ
      English
 IC
      ICM A61K047-48
 CC
      63-5 (Pharmaceuticals)
      Section cross-reference(s): 28
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                             DATE
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      WO 2001013958
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             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
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              ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
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     EP 1212096
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         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
     JP 2003507439
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PRAI US 1999-150765P
                                                             20000828
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     US 1999-150894P
                            19990826
     US 2000-184411P
                            20000223
     US 2000-184412P
                            20000223
     WO 2000-US23593
                            20000828
                       W
    The invention relates to drug conjugates and methods of their design. One
AB
    embodiment of the invention is directed to a method of designing
    vector-linker-pharmacophore (VLP) conjugates that is generally applicable
    to a wide variety of vectors, linkers, and pharmacophores. The invention
    also encompasses a method of improving the delivery of a pharmacophore to
    a patient, as well as a method of improving the therapeutic efficacy of a
    pharmacophore and a method of decreasing the toxicity of a pharmacophore.
    A method of increasing the concn. of a pharmacophore in a cell is further
    encompassed by the invention. Prepn. of many VLP conjugates including
    conjugates of kirromycin-3-nitro-4-hydrazidophenylthioethanol-tetracycline
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drug conjugate vector linker pharmacophore; kirromycin
   ST
        hydrazidophenylthioethanol tetracycline deriv conjugate prepn
   IT
           (bacterial; drug conjugates comprising vector-linker-pharmacophore and
          methods of designing same)
  IT
       Antibacterial agents
       Antibiotics
       Antiviral agents
       Fungicides
       Parasiticides
       Protozoacides
          (conjugates; drug conjugates comprising vector-linker-pharmacophore and
          methods of designing same)
       Polyoxyalkylenes, biological studies
  IT
       Polysaccharides, biological studies
       RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
       study); PREP (Preparation); USES (Uses)
          (conjugates; drug conjugates comprising vector-linker-pharmacophore and
         methods of designing same)
      Drug delivery systems
  IT
      Eukaryote (Eukaryotae)
      Infection
      Ionophores
      Pathogen
      Ribosome
         (drug conjugates comprising vector-linker-pharmacophore and methods of
         designing same)
      Glycosylation
 {	t IT}
      Mycoplasma
         (inhibitors; drug conjugates comprising vector-linker-pharmacophore and
         methods of designing same)
      Enzymes, biological studies
 IT
      Proteins, general, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (inhibitors; drug conjugates comprising vector-linker-pharmacophore and
        methods of designing same)
 IT
      DNA
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (modifiers; drug conjugates comprising vector-linker-pharmacophore and
        methods of designing same)
     Nucleic acids
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (mutagens; drug conjugates comprising vector-linker-pharmacophore and
        methods of designing same)
     Alkylating agents, biological
IT
        (of nucleic acids; drug conjugates comprising vector-linker-
        pharmacophore and methods of designing same)
     86386-73-4, Fluconazole
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL
     (Biological study); RACT (Reactant or reagent); USES (Uses)
        (drug conjugates comprising vector-linker-pharmacophore and methods of
       designing same)
    58-85-5DP, Biotin, conjugate with penicillin derivs.
IT
                                                            58-85-5DP, Biotin,
                 60-54-8DP, Tetracycline, conjugates
    a, derivs., conjugate with biotin 738-70-5DP, Trimethoprim, conjugates
                                                      525-97-3DP, Penicillin
    738-70-5DP, Trimethoprim, reaction with kirromycin conjugates
    1406-05-9DP, Penicillin, conjugates 11076-17-8DP, Sordarin, conjugates
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with antibiotics

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328401-69-0DP, reaction with tetracycline and trimethoprim derivs.
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
      BIOL (Biological study); PREP (Preparation); USES (Uses)
         (drug conjugates comprising vector-linker-pharmacophore and methods of
         designing same)
      50-00-0, Formaldehyde, reactions 60-23-1, 2-Mercaptoethylamine
 IT
      60-54-8D, Tetracycline, reaction with kirromycin conjugates
      Ethanol, reactions 64-18-6, Formic acid, reactions
      5-Nitrosalicylaldehyde 100-39-0, Benzyl bromide
                                                         103-84-4,
      Acetylaniline
                     108-24-7, Acetic anhydride 109-64-8, 1,3 DiBromopropane
      111-30-8, Glutardialdehyde 124-40-3, Dimethylamine, reactions
      124-41-4, Sodium methoxide 124-63-0, Methylsulfonyl chloride
      1,3 Dichloropropane 156-81-0, 2,4 Diaminopyrimidine
                                                                     142-28-9,
      Hydrazine, reactions 530-62-1 540-88-5, Tert-Butylacetate
                                                            302-01-2,
      6-Aminopenicillanic acid 598-21-0, BROMOACETYL BROMIDE
                                                                    551-16-6,
     2-Nitroresorcinol 605-65-2, Dansyl chloride 624-84-0, Formyl hydrazine
                928-01-8, Maleamide 1003-10-7, .gamma.-Thiobutyrolactone
     1197-55-3, 4-Aminophenylacetic acid 1313-82-2, Sodium sulfide, reactions
     2393-24-0 2950-43-8, Hydroxylamine-O-sulfonic acid
                                                           3483-12-3,
     Dithiothreitol
                      3963-95-9, Methacycline hydrochloride
     4829-04-3, 1,3-Dithiolane 5414-21-1, 5-Bromovaleronitrile
                                                             4163-60-4
     Hydroxylamine hydrochloride 6258-60-2, 4-Methoxybenzylmercaptan
                                                                  5470-11-1,
     6539-14-6, Traut's reagent 6625-20-3, 6-Demethyl 6 deoxytetracycline
                    7631-99-4, Sodium nitrate, reactions 7664-41-7, Ammonia,
     reactions
                 7681-49-4, Sodium fluoride, reactions 7697-37-2, Nitric
     acid, reactions
                      7790-28-5, Sodium periodate 7791-25-5, Sulfonyl
     chloride
               10028-15-6, Ozone, reactions 10035-10-6, Hydrobromic acid,
     reactions 10592-13-9, Doxycycline hydrochloride 13154-24-0,
     Triisopropylsilyl chloride 16940-66-2, Sodium borohydride
     Mercuric oxide 22542-53-6
                                                                 21908-53-2,
                                23361-78-6 25155-26-4, Dimethoxyphenol
     25895-60-7, Sodium cyanoborohydride 38078-09-0, Diethylaminosulfur
    trifluoride 41661-47-6, 4-Piperidone 50935-71-2, Kirromycin
     53152-67-3
                 69468-17-3, Diaminobutane 72040-63-2 84030-21-7
     93285-75-7
                 109276-34-8
                               134759-23-2
                                            205584-10-7 328400-58-4
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (drug conjugates comprising vector-linker-pharmacophore and methods of
       designing same)
    104-10-9P
IT
               107-68-6P, N-Methyltaurine
                                            501-53-1P, Carbobenzyloxy
    chloride
               1007-54-1P
                            3163-15-3P, 2-Aminoresorcinol
    6066-83-7P, 5-Aminovaleronitrile 15896-61-4P
                                                           5063-96-7P
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    21253-57-6P
                                                                 19285-38-2P
                  21253-58-7P
                               21822-24-2P
                                             52648-14-3P,
    1-N-Desmethylgoldinamine
                              73164-56-4P
                                            74219-55-9P
                                                          86386-77-8P
    116435-82-6P
                 120793-45-5P
                                 143429-10-1P
                                                155834-18-7P
    161321-34-2P
                                                               161321-16-0P
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                                                188434-26-6P
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    328401-08-7P
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                  328401-40-7P
                                 328401-41-8P
                                               328401-42-9P
                                                              328401-43-0P
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86386-73-4DP, Fluconazole, conjugates

328401-25-8P

HARDEE 10/052967 10/1/03 Page 45

> 328401-44-1P 328401-45-2P 328401-46-3P 328401-47-4P 328401-49-6P 328401-48-5P 328401-50-9P 328401-51-0P 328401-53-2P 328401-55-4P 328401-54-3P 328401-57-6P **328401-59-8P** 328401-61-2P 328401-63-4P 328401-64-5P 328401-66-7P 328401-68-9P 328401-69-0DP, derivs. 328401-71-4P 328401-72-5P 328401-73-6P 328401-74-7P 328401-75-8P 328401-76-9P 328401-77-0P 328899-82-7P, Goldinonic acid RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(drug conjugates comprising vector-linker-pharmacophore and methods of designing same)

9002-98-6DP, conjugates 25322-68-3DP, Polyethylene glycol, conjugates IT 26913-06-4DP, Poly[imino(1,2-ethanediyl)], conjugates Fluconazole, conjugates with vectors and linkers 86386-73-4DP,

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug conjugates comprising vector-linker-pharmacophore and methods of designing same)

9014-24-8, Transcriptase IT

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (drug conjugates comprising vector-linker-pharmacophore and methods of designing same)

9001-92-7, Protease IT9002-03-3, Dihydrofolate reductase Phosphatase 9031-44-1, Kinase 9037-17-6, Nucleic acid polymerase 9013-05-2, RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; drug conjugates comprising vector-linker-pharmacophore and methods of designing same) 328401-59-8P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(drug conjugates comprising vector-linker-pharmacophore and methods of designing same)

328401-59-8 HCAPLUS RN

1,3-Benzenediol, 2-amino-5-[[(2-mercaptoethyl)methylamino]methyl]- (9CI) CN

$$\begin{array}{c} \text{Me} \\ | \\ | \\ \text{CH}_2 - \text{N-CH}_2 - \text{CH}_2 - \text{SH} \\ \\ | \\ \text{OH} \end{array}$$

- ANSWER 12 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13
- 2000:900459 HCAPLUS AN
- 134:56484 DN
- Preparation of novel guanidine containing compounds as IL-8 receptor TI
- Bryan, Deborah L.; Gleason, John G.; Widdowson, Katherine L.; Benson, IN Gregory M.
- Smithkline Beecham Corporation, USA PA SO
- PCT Int. Appl., 56 pp. CODEN: PIXXD2
- DTPatent

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HARDEE 10/052967
                      10/1/03
                                  Page 46
LA
     English
IC
     ICM A61K031-47
     ICS A61K031-495; A61K031-38; A61K047-28; A61K031-17
     25-21 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
CC
     Section cross-reference(s): 1
FAN. CNT 1
     PATENT NO.
                      KIND
                                           APPLICATION NO.
    WO 2000076516
PI
                            20001221
                       A1
                                           WO 2000-US16813
                                                            20000616
            AE, AL, AU, BA, BB, BG, BR, CA, CN, CZ, DZ, EE, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK,
            MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, TZ, UA, US, UZ,
            VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG BR 2000010985 20020326 Α BR 2000-10985 20000616 EP 1191934 20020403 **A**1 EP 2000-942933 20000616 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO JP 2003501471 20030114 T2JP 2001-502849 ZA 2001010203 20000616 20020911 Α ZA 2001-10203

20001212 NO 2001006065 Α 20011212 NO 2001-6065 20011212 PRAI US 1999-139674P 19990616 WO 2000-US16813 20000616

MARPAT 134:56484 OS

GI

$$\begin{array}{c|c}
 & Z \\
 & N \\
 & N \\
 & N \\
 & M \\
 & M
\end{array}$$

$$\begin{array}{c|c}
 & CR13R14 \\
\hline
 & V
\end{array}$$

The title compds. [I; Z = CN, OR11, COR15R16, etc.; V = 0-4; R11 = H, AB alkyl, aryl, etc.; R13, R14 = H, alkyl; or one of R13 and R14 may be optionally substituted aryl; R15, R16 = H, alkyl, aryl; W, W1 = (un) substituted Ph, 2,3-methylendioxyphenyl, etc.], useful in the treatment of disease states mediated by the chemokine, Interleukin-8 (IL-8), were prepd. Thus, reacting sodium salt of N-(2-chlorophenyl)-N'cyanothiourea (prepn. given) with 2-hydroxy-3-nitroaniline in the presence of EDC.HCl in DMF afforded 9% I [Z = CN; v = 0; W = 2-OH-3-NO2C6H3; W1 = 02-ClC6H4]. The exemplified compds. I showed IC50 of 5-100 nM in the permissive models (IL-8b) for IL-8 receptor inhibition. ST

guanidine prepn interleukin receptor antagonist Interleukin 8 receptors IT

RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)

(prepn. of novel guanidine contg. compds. as IL-8 receptor antagonists) 203201-26-7P IT203201-27-8P 203201-28-9P 203201-29-0P 203201-31-4P 203201-30-3P 203201-32-5P 203201-33-6P 203201-34-7P 313640-97-0P 203201-35-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel guanidine contg. compds. as IL-8 receptor antagonists) 100-39-0, Benzyl bromide 103-72-0, Phenyl isothiocyanate IT Allyl bromide, reactions 303-07-1, 2,6-Dihydroxybenzoic acid 2-Hydroxy-3-nitroaniline 1458-98-6, 3-Bromo-2-methyl-1-propene 2740-81-0, 2-Chlorophenyl isothiocyanate 6590-97-2, 2,3-Dichlorophenyl isothiocyanate 13037-60-0, 2-Bromophenyl isothiocyanate 18495-15-3, 3-Hydroxy-4-nitrobenzonitrile 203201-48-3, 2-Allyloxy-4-cyano-3propylaniline 203201-49-4, 2,3-Methylenedioxyphenyl isothiocyanate RL: RCT (Reactant); RACT (Reactant or reagent) (prepn. of novel guanidine contg. compds. as IL-8 receptor antagonists) IT2150-45-0P 74292-74-3P 144264-60-8P 151322-76-8P 203190-56-1P 203190-57-2P 203190-59-4P 203190-60-7P 203201-37-0P 203201-39-2P 203201-40-5P 203201-41-6P 203201-42-7P 203201-38-1P 203201-43-8P 203201-44-9P 203201-45-0P 203201-46-1P 203201-47-2P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (prepn. of novel guanidine contg. compds. as IL-8 receptor antagonists) RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD RE (1) Warner-Lambert Corp; EP 0344425 A2 1989 HCAPLUS (2) Widdowson; US 5780483 A 1998 HCAPLUS 203201-41-6P 203201-42-7P 203201-47-2P ITRL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT RN

(prepn. of novel guanidine contg. compds. as IL-8 receptor antagonists) 203201-41-6 HCAPLUS Benzonitrile, 4-amino-3-hydroxy-2-(2-propenyl)- (9CI) CN

(CA INDEX NAME)

$$CH_2-CH=CH_2$$
OH
 NH_2

RN203201-42-7 HCAPLUS Benzonitrile, 4-amino-3-hydroxy-2-propyl- (9CI) (CA INDEX NAME) CN

203201-47-2 HCAPLUS RN Benzoic acid, 3-amino-6-cyano-2-hydroxy-, methyl ester (9CI) (CA INDEX CN

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ANSWER 13 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN
  L13
       2000:900438 HCAPLUS
  AN
       134:56482
  DN
      Preparation of N,N'-diphenyl ureas as IL-8 receptor antagonists
  TI
      Benson, Gregory Martin; Hertzberg, Robert P.; Jurewicz, Anthony J.;
  IN
      Rutledge, Melvin Clarence; Veber, Daniel F.; Widdowson, Katherine L.
 PA
      Smithkline Beecham Corporation, USA
      PCT Int. Appl., 101 pp.
 SO
      CODEN: PIXXD2
 DT
      Patent
      English
 LA
 IC
      ICM A61K031-27
      25-21 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 CC
      Section cross-reference(s): 1
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      PATENT NO.
                       KIND
                                            APPLICATION NO.
                                                              DATE
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      WO 2000076495
                             20001221
                        A1
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             MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, TZ, UA, US, UZ,
             VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                            20020219
                       Α
                                            BR 2000-10802 20000615
     EP 1185261
                       A1
                             20020313
                                            EP 2000-942843
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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             IE, SI, LT, LV, FI, RO
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                            20030114
                       T2
                                            JP 2001-502828
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                                           ZA 2001-9479
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     NO 2001006053
                            20011211
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                                           NO 2001-6053
PRAI US 1999-139675P
                                                             20011211
                            19990616
     WO 2000-US16499
                            20000615
    MARPAT 134:56482
OS
GI
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$$\begin{array}{c|c} Y_{n} & & \\ & X & \\ & & \\ N & & \\ \end{array}$$

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The title compds. [I; X = 0, S; R = any functional moiety having an
 AB
      ionizable H and pKa of .ltoreq. 10; R1 = H, halo, NO2, etc.; two R1
      moieties together may form O(CH2)sO, 5-6 membered unsatd. ring; s = 1-3; Y
      = H, halo, NO2, etc.; two Y moieties together may form O(CH2)sO, 5-6
      membered unsatd. ring; n, m = 1-3], useful for treating a chemokine
      mediated disease, wherein the chemokine is one which binds to an IL-8
      .alpha. or .beta. receptor, were prepd. Thus, reacting Me
      4-amino-3-hydroxybenzoate with Ph isocyanate afforded 90% I [X = O; R =
     OH; R1 = 4-CO2Me; m = 1; Y = H]. All of the exemplified compds. I showed
     an IC50 from about 45 to about < 1 .mu.g/mL against IL-8 receptor binding.
     All of these compds. were also found to be inhibitors of Gro-.alpha.
     binding at about the same level.
     urea phenyl prepn interleukin receptor antagonist gro alpha inhibitor;
 ST
     melanoma growth stimulating activity alpha inhibitor urea phenyl prepn
     Melanoma growth-stimulating activity-.alpha.
IT
     RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL
     (Biological study)
        (Gro .alpha.; prepn. of N,N'-diphenyl ureas as IL-8 receptor
        antagonists)
     Interleukin 8 receptors
IT
     RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL
     (Biological study)
        (prepn. of N,N'-diphenyl ureas as IL-8 receptor antagonists)
     160383-79-9P
IT
                    182497-99-0P 182498-47-1P
                                                  182498-79-9P
                                                                 182498-99-3P
     182499-02-1P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
     (Reactant or reagent); USES (Uses)
        (prepn. of N,N'-diphenyl ureas as IL-8 receptor antagonists)
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                                  182499-46-3P
                                                 182499-47-4P
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   182499-49-6P
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                                  182499-51-0P
                                                 182499-52-1P
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   182499-54-3P
                  182499-55-4P
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                                                 182499-57-6P
   182499-59-8P
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   182499-64-5P
                  182499-65-6P
                                 182499-66-7P
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182499-67-8P

182499-68-9P

182499-69-0P 182499-70-3P 182499-71-4P 182499-72-5P 182501-57-1P 182700-31-8P 222172-42-1P 313688-79-8P 313688-80-1P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of N, N'-diphenyl ureas as IL-8 receptor antagonists) 62-53-3, Aniline, reactions 86-84-0, 1-Naphthyl isocyanate 87-17-2 IT88-67-5, 2-Iodobenzoic acid 90-43-7, 2-Phenylphenol 91-93-0 o-Phenylenediamine, reactions 95-55-6, 2-Aminophenol 95-54-5, 98-09-9, Phenylsulfonyl chloride 98-17-9 99-56-9, 4-Nitro-1,2-phenylenediamine 99-57-0, 5-Nitro-2-hydroxyaniline 100-46-9, Benzylamine, reactions 103-71-9, Phenyl isocyanate, reactions 106-40-1, 4-Bromoaniline 116-63-2, 1-Amino-2-hydroxy-4-naphthalenesulfonic acid 117-77-1 117-99-7 121-51-7, 3-Nitrobenzenesulfonyl chloride 121-60-8, 4-Acetamidophenylsulfonyl chloride 121-88-0, 2-Amino-5-nitrophenol 137-07-5, 2-Aminothiophenol 274-09-9, 1,3-Benzodioxole 4-Bromo-2-fluoro-6-nitrophenol 329-01-1, 3-Trifluoromethylphenyl isocyanate 385-01-3, 3-Fluoro-2-nitrophenol 394-31-0, 2-Amino-5-hydroxybenzoic acid 394-33-2, 4-Fluoro-2-nitrophenol 400-98-6, 4-Amino-3-nitrobenzotrifluoride 400-99-7, 4-Trifluoromethyl-2nitrophenol 444-30-4, 2-Trifluoromethylphenol 446-36-6, 5-Fluoro-2-nitrophenol 534-85-0, 2-Anilinoaniline 570-23-0, 2-Hydroxy-3-aminobenzoic acid 576-24-9, 2,3-Dichlorophenol 3-Phenylphenol 603-87-2, 2-Hydroxy-3-nitroaniline 580-51-8, 609-89-2, 4,6-Dichloro-2-nitrophenol 611-20-1, 2-Cyanophenol 614-68-6, 2-Methylphenyl isocyanate 615-36-1, 2-Bromoaniline 3-Isopropylphenol 620-17-7, 3-Ethylphenol 644-35-9, 2-n-Propylphenol 700-87-8, 2-Methoxyphenyl isocyanate 776-04-5, 2-(Trifluoromethyl)benzenesulfonyl chloride 837-95-6, 2-Nitro-4-(trifluoromethyl)benzenesulfonyl chloride 873-62-1, 3-Cyanophenol 1548-13-6, 4-Trifluoromethylphenyl isocyanate 1592-00-3, 2-Bromophenyl isocyanate 1623-92-3, 4-Phenoxybenzenesulfonyl chloride 1939-99-7, Benzylsulfonyl chloride 2237-30-1, 3-Cyanoaniline 2243-42-7, 2-Phenoxybenzoic acid 2285-12-3, 2-Trifluoromethylphenyl 2374-03-0, 3-Hydroxy-4-aminobenzoic acid 4-Bromophenyl isocyanate 2612-57-9, 2,4-Dichlorophenyl isocyanate 2834-92-6, 1-Amino-2-hydroxynaphthalene 2835-98-5, 2-Hydroxy-4methylaniline 3272-08-0, 4-Cyano-2-nitrophenol 3320-83-0, 2-Chlorophenyl isocyanate 3320-86-3, 2-Nitrophenyl isocyanate 3470-49-3 4091-26-3, Styrylsulfonyl chloride 5395-71-1, 2-Ethoxyphenyl isocyanate 5417-63-0, 3-Amino-2-hydroxynaphthalene 6272-38-4, 2-Benzyloxyphenol 6344-59-8, 1-Hydroxy-2-nitrofluorene 2-Amino-3-hydroxy-6-naphthalenesulfonic acid 13020-57-0, 6399-72-0, 3-Hydroxybenzophenone 14755-02-3 16629-19-9, 2-Thiophenesulfonyl 16744-98-2, 2-Fluorophenyl isocyanate 17337-13-2, 2-Phenylphenyl isocyanate 17573-92-1, 3-Methoxythiophene 3-Chloro-2-nitrophenol 17802-02-7, 18493-15-7 18704-37-5, 8-Quinolinylsulfonyl chloride 18908-07-1, 3-Methoxyphenyl isocyanate 20513-43-3 21286-54-4 23095-31-0, 3,4-Dimethoxyphenylsulfonyl chloride 23138-55-8, 3-Bromophenyl isocyanate 35821-29-5 39234-86-1, 3,5-Bis(trifluoromethyl)benzenesulfonyl chloride 39262-22-1 40398-01-4, 2-Chloro-6-methylphenyl isocyanate 40411-25-4, 2-Ethylphenyl isocyanate 41195-90-8, 2,3-Dichlorophenyl isocyanate 2-Amino-4-(ethylsulfonyl)phenol 52260-30-7, 2-(Methylthio)phenyl 43115-40-8, 55076-90-9, 2,4-Dibromophenyl isocyanate 63435-16-5, Methyl 4-amino-3-hydroxybenzoate 65295-69-4, 2,6-Difluorophenyl isocyanate 69812-29-9, 2-Acetamido-4-methyl-5-thiazolesulfonyl chloride 82419-26-9, 2,3-Difluoro-6-nitrophenol 99968-81-7, 3-Iodo-2-hydroxyaniline

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                                   182500-29-4 182500-30-7,
       3,5,6-Trifluoro-2-hydroxyaniline 182500-31-8, 4-Trifluoromethyl-3-fluoro-
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          (prepn. of N,N'-diphenyl ureas as IL-8 receptor antagonists)
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       454-82-0P, 2-Amino-5-trifluoromethylphenol
                                                  527-62-8P,
       2-Amino-4,6-dichlorophenol
                                   1214-44-4P
                                               1548-62-5P, 2-Nitro-6-
       trifluoromethylphenol 4291-30-9P, 2-Nitro-6-phenylphenol
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       7256-03-3P, 2-Amino-1-hydroxyfluorene 14543-43-2P, 2-Amino-4-cyanophenol
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      2-Nitro-6-cyanophenol 31684-63-6P, 4-Amino-3-hydroxybenzophenone
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                                  53442-24-3P, 2-Amino-6-phenylphenol
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      55586-26-0P, 2-Amino-5-cyanophenol
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                    182700-33-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of N, \bar{N}'-diphenyl ureas as IL-8 receptor antagonists)
RE.CNT 1
              THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Badger; US 5900430 A 1999 HCAPLUS
     55586-26-0P, 2-Amino-5-cyanophenol
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of N, N'-diphenyl ureas as IL-8 receptor antagonists)
     55586-26-0 HCAPLUS
RN
     Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME)
CN
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ANSWER 14 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13

2000:861661 HCAPLUS AN

134:29427 DN

Preparation of novel guanidine compounds as IL-8 receptor antagonists TIIN

Palovich, Michael R.; Widdowson, Katherine L.

Smithkline Beecham Corporation, USA PASO

PCT Int. Appl., 33 pp. CODEN: PIXXD2

Patent DT

LА English

IC ICM C07D239-72

ICS A61K031-517; A61P009-10; A61P011-06; A61P029-02

28-16 (Heterocyclic Compounds (More Than One Hetero Atom)) CCSection cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND D	DATE	APPLICATION NO.	ከ ልጥድ
PI	MN, MX, VN, YU, RW: GH, GM,	AU, BA, IL, IN, NO, NZ, ZA, AM, KE, LS, N	IS, JP, KP, PL, RO, SG, AZ, BY, KG, MW, MZ, SD.	WO 2000-US14659 CA, CN, CZ, DZ, EE, KR, LC, LK, LR, LT, SI, SK, SL, TR, TT, KZ, MD, RU, TJ, TM	20000526 GE, GH, GM, HR, LV, MA, MG, MK, TZ, UA, US, UZ,
PRAI OS GI	•	CI, CM, C	CA CM CM	IE, IT, LU, MC, NL, ML, MR, NE, SN, TD,	5 m

$$\begin{bmatrix} R^1 \\ M \\ N \\ R \end{bmatrix}_{m}$$

$$\begin{bmatrix} NC \\ N \\ N \\ M \end{bmatrix}$$

$$\begin{bmatrix} NC \\ N \\ M \\ N \\ M \end{bmatrix}$$

$$\begin{bmatrix} NC \\ N \\ M \\ M \\ M \end{bmatrix}$$

$$\begin{bmatrix} NC \\ N \\ M \\ M \\ M \end{bmatrix}$$

$$\begin{bmatrix} NC \\ N \\ M \\ M \\ M \end{bmatrix}$$

The title compds. [I; R = OH, SH, NHSO2R3 (R3 = (un) substituted NH2, ABalkyl, arylalkyl, etc.); R1 = H, halo, NO2, etc.; R2 = CO, SO, SO2, C(NH); Y = H, halo, NO2, etc.; n = 1-3; m = 1-3], useful in the treatment of disease states mediated by the chemokine, Interleukin-8 (IL-8), were

Br

II

prepd. E.g., a multi-step synthesis of quinazoline II was given. All the exemplified compds. I showed IC50 from about 45 to about <1 .mu.g/mL in the permissive models for IL-8 receptor inhibition. Some of the tested compds. I were also found to be inhibitors of Gro-.alpha. binding at about the same level.

guanidine prepn interleukin chemokine groalpha inhibitor ST

Interleukin 8 receptors IT

Melanoma growth-stimulating activity-.alpha.

RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)

(prepn. of novel guanidine compds. IL-8 receptor antagonists)

311346-36-8P IT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel guanidine compds. IL-8 receptor antagonists) 59-49-4, 2(3H)-Benzoxazolone IT87-25-2, Ethyl anthranilate 13037-60-0, 2-Bromophenyl isothiocyanate

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of novel guanidine compds. IL-8 receptor antagonists)

19932-85-5P **55586-26-0P** IT98556-62-8P 260053-67-6P 311311-26-9P

311311-27-0P 311311-28-1P 311311-29-2P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of novel guanidine compds. IL-8 receptor antagonists) RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

(1) Bereznak; US 5747497 A 1998 HCAPLUS

(2) E I Dupont de Nemours And Company; WO 9702262 A1 1997 HCAPLUS

55586-26-0P ${ t IT}$

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of novel guanidine compds. IL-8 receptor antagonists)

55586-26-0 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

ANSWER 15 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13

2000:861490 HCAPLUS AN

DN 134:25357

Phenyl urea IL-8 receptor antagonists for therapeutic use TI

Palovich, Michael R.; Widdowson, Katherine L. IN

Smithkline Beecham Corporation, USA PA

PCT Int. Appl., 39 pp. SO CODEN: PIXXD2

DT Patent

LAEnglish

IC ICM A61K031-4168

ICS A61K031-4188; A61K031-437; C07D233-50; C07D235-02; C07D471-14;

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C07D487-14; C07D513-04
        1-7 (Pharmacology)
   CC
        Section cross-reference(s): 27, 28, 63
  FAN.CNT 1
       PATENT NO.
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                               DATE
                                             APPLICATION NO.
                                                               DATE
       WO 2000072845
  ΡI
                               20001207
                         A1
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                         A1
                                             EP 2000-936369
                                                              20000526
           R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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       JP 2003500447
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                                             JP 2000-620957
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                         B1
                                             US 2001-9212
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      ZA 2001009628
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                         A
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                                                              20011122
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                              20011127
                        Α
                                             NO 2001-5775
 PRAI US 1999-136717P
                                                              20011127
                        P 19990528
      WO 2000-US14661
                              20000526
      MARPAT 134:25357
 OS
      The invention discloses the use of Ph ureas in the treatment of disease
 ΑB
      states mediated by the chemokine, Interleukin-8 (IL-8). Prepn. of compds.
      of the invention is described.
      phenyl urea prepn therapeutic interleukin 8 disease
 ST
      Chemokine receptors
 IT
      RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
      (Biological study); PROC (Process)
         (CXCR1; phenylurea IL-8 receptor antagonists for therapeutic use)
      Chemokine receptors
 IT
      RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
      (Biological study); PROC (Process)
         (CXCR2; phenylurea IL-8 receptor antagonists for therapeutic use)
 IT
     Intestine, disease
        .(Crohn's; phenylurea IL-8 receptor antagonists for therapeutic use)
IT
      Sepsis
         (Gram-neg.; phenylurea IL-8 receptor antagonists for therapeutic use)
IT
     mRNA
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (TNF-.alpha. and IL-1.beta.; phenylurea IL-8 receptor antagonists for
        therapeutic use)
IT
     Respiratory distress syndrome
        (adult; phenylurea IL-8 receptor antagonists for therapeutic use)
     Transplant rejection
IT
        (allotransplant; phenylurea IL-8 receptor antagonists for therapeutic
        use)
    Antiarteriosclerotics
IT
        (antiatherosclerotics; phenylurea IL-8 receptor antagonists for
        therapeutic use)
    Dermatitis
IT
        (atopic; phenylurea IL-8 receptor antagonists for therapeutic use)
IT
    Lung, disease
       (chronic obstructive; phenylurea IL-8 receptor antagonists for
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therapeutic use) IT Brain (cortex; phenylurea IL-8 receptor antagonists for therapeutic use) IT Drugs (gastrointestinal; phenylurea IL-8 receptor antagonists for therapeutic IT Gingiva (gingivitis; phenylurea IL-8 receptor antagonists for therapeutic use) Kidney, disease IT (glomerulonephritis; phenylurea IL-8 receptor antagonists for therapeutic use) Transplant and Transplantation IT (graft-vs.-host reaction; phenylurea IL-8 receptor antagonists for therapeutic use) ITBrain (hippocampus; phenylurea IL-8 receptor antagonists for therapeutic use) Intestine, disease IT (inflammatory; phenylurea IL-8 receptor antagonists for therapeutic use) ITReperfusion (injury, cardiac and renal; phenylurea IL-8 receptor antagonists for therapeutic use) IT Angiogenesis Angiogenesis inhibitors Anti-Alzheimer's agents Anti-inflammatory agents Antiarthritics Antiasthmatics Cardiovascular agents Drug delivery systems Malaria Psoriasis Thrombosis (phenylurea IL-8 receptor antagonists for therapeutic use) IT Chemokines Interleukin 1.beta. Interleukin 8 Tumor necrosis factors RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (phenylurea IL-8 receptor antagonists for therapeutic use) ITHeart, disease Kidney, disease (reperfusion injury; phenylurea IL-8 receptor antagonists for therapeutic use) ITArtery, disease (restenosis; phenylurea IL-8 receptor antagonists for therapeutic use) Shock (circulatory collapse) IT (septic; phenylurea IL-8 receptor antagonists for therapeutic use) Hematopoietic precursor cell IT(stem, undesired release; phenylurea IL-8 receptor antagonists for therapeutic use) Brain, disease IT(stroke; phenylurea IL-8 receptor antagonists for therapeutic use) ITOsteoporosis (therapeutic agents; phenylurea IL-8 receptor antagonists for therapeutic use) Shock (circulatory collapse) IT

(toxic shock syndrome; phenylurea IL-8 receptor antagonists for therapeutic use)

IT Brain, disease

(trauma; phenylurea IL-8 receptor antagonists for therapeutic use)

IT Intestine, disease

(ulcerative colitis; phenylurea IL-8 receptor antagonists for therapeutic use)

Interleukin 8 receptors IT

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(.alpha.; phenylurea IL-8 receptor antagonists for therapeutic use)

Interleukin 8 receptors IT

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(.beta.; phenylurea IL-8 receptor antagonists for therapeutic use) 311319-98-9P IT311319-99-0P 311320-00-0P 311320-01-1P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (phenylurea IL-8 receptor antagonists for therapeutic use)

311320-02-2 IT311320-03-3 311320-04-4 311320-05-5 311320-06-6 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(phenylurea IL-8 receptor antagonists for therapeutic use) 19932-85-5P **55586-26-0P** 98556-62-8P IT260053-67-6P 311311-26-9P 311311-27-0P 311311-28-1P 311311-29-2P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction; phenylurea IL-8 receptor antagonists for therapeutic use)

59-49-4, 2(3H)-Benzoxazolone 1592-00-3, 2-Bromophenylisocyanate IT6436-90-4, N-Benzylglycine ethyl ester 16652-71-4, L-Proline benzyl ester hydrochloride 18162-48-6 24424-99-5, BOC anhydride Methyl pipecolinate hydrochloride 40216-83-9 65365-28-8, D-Proline 32559-18-5, methyl ester hydrochloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction; phenylurea IL-8 receptor antagonists for therapeutic use) THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

(1) Smithkline Beecham Corporation; WO 0035442 A1 2000 HCAPLUS 55586-26-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction; phenylurea IL-8 receptor antagonists for therapeutic use)

55586-26-0 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

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ANSWER 16 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN
  L13
       2000:861485 HCAPLUS
  AN
       134:25356
  DN
       Phenyl urea IL-8 receptor antagonists for therapeutic use
  TI
       Palovich, Michael R.; Widdowson, Katherine L.
  IN
       Smithkline Beecham Corporation, USA
  PA
       PCT Int. Appl., 42 pp.
  SO
       CODEN: PIXXD2
  DT
       Patent
  LĄ
       English
  IC
       ICM A61K031-155
       ICS A61K031-4168; A61K031-433; A61P009-10; A61P011-06; A61P013-12;
            C07C279-18; C07D233-04; C07D233-54; C07D271-10; C07D285-135
  CC
       1-7 (Pharmacology)
       Section cross-reference(s): 25, 28, 63
  FAN.CNT 1
       PATENT NO.
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                              DATE
                                             APPLICATION NO.
                                                               DATE
      WO 2000072840
 PI
                              20001207
                         A1
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          W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CZ, DZ, EE, GE, GH, GM, HR,
                                                               20000526
              HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK,
              MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, TZ, UA, US, UZ,
              VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
              CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      BR 2000010863
                             20020219
                        Α
                                             BR 2000-10863
                                                              20000526
      EP 1180025
                             20020220
                        A1
                                             EP 2000-936368
                                                              20000526
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO
      JP 2003500443
                             20030107
                        T2
                                            JP 2000-620952
      ZA 2001009267
                                                              20000526
                             20021128
                        A
                                            ZA 2001-9267
      NO 2001005774
                                                              20011122
                        A
                             20011127
                                            NO 2001-5774
 PRAI US 1999-136665P
                                                              20011127
                             19990528
                        Ρ
     WO 2000-US14660
                             20000526
                        W
     MARPAT 134:25356
OS
     The invention discloses the use of Ph ureas in the treatment of disease
AB
     states mediated by the chemokine, Interleukin-8 (IL-8). Prepn. of compds.
     of the invention is described.
     phenyl urea prepn therapeutic interleukin 8 disease
\mathtt{ST}
     Chemokine receptors
IT
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (CXCR1; phenylurea IL-8 receptor antagonists for therapeutic use)
     Chemokine receptors
IT
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (CXCR2; phenylurea IL-8 receptor antagonists for therapeutic use)
     Intestine, disease
IT
        (Crohn's; phenylurea IL-8 receptor antagonists for therapeutic use)
IT
     Sepsis
        (Gram-neg.; phenylurea IL-8 receptor antagonists for therapeutic use)
IT
    mRNA
    RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (TNF-.alpha. and IL-1.beta.; phenylurea IL-8 receptor antagonists for
       therapeutic use)
```

```
IT
       Respiratory distress syndrome
           (adult; phenylurea IL-8 receptor antagonists for therapeutic use)
       Transplant rejection
  IT
           (allotransplant; phenylurea IL-8 receptor antagonists for therapeutic
          use)
       Antiarteriosclerotics
  IT
          (antiatherosclerotics; phenylurea IL-8 receptor antagonists for
          therapeutic use)
  IT
       Dermatitis
          (atopic; phenylurea IL-8 receptor antagonists for therapeutic use)
  IT
       Lung, disease
          (chronic obstructive; phenylurea IL-8 receptor antagonists for
          therapeutic use)
  IT
       Brain
          (cortex; phenylurea IL-8 receptor antagonists for therapeutic use)
  IT
       Drugs
          (gastrointestinal; phenylurea IL-8 receptor antagonists for therapeutic
          use)
  IT
       Gingiva
          (gingivitis; phenylurea IL-8 receptor antagonists for therapeutic use)
 IT
       Kidney, disease
          (glomerulonephritis; phenylurea IL-8 receptor antagonists for
         therapeutic use)
      Transplant and Transplantation
 IT
          (graft-vs.-host reaction; phenylurea IL-8 receptor antagonists for
         therapeutic use)
 IT
      Brain
         (hippocampus; phenylurea IL-8 receptor antagonists for therapeutic use)
 IT
      Intestine, disease
         (inflammatory; phenylurea IL-8 receptor antagonists for therapeutic
         use)
      Reperfusion
 IT
         (injury, cardiac and renal; phenylurea IL-8 receptor antagonists for
         therapeutic use)
      Angiogenesis
 IT
      Angiogenesis inhibitors
      Anti-Alzheimer's agents
      Anti-inflammatory agents
     Antiarthritics
     Antiasthmatics
     Cardiovascular agents
     Drug delivery systems
     Malaria
     Psoriasis
     Thrombosis
         (phenylurea IL-8 receptor antagonists for therapeutic use)
IT
     Chemokines
     Interleukin 1.beta.
     Interleukin 8
     Tumor necrosis factors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (phenylurea IL-8 receptor antagonists for therapeutic use)
     Heart, disease
IT
     Kidney, disease
        (reperfusion injury; phenylurea IL-8 receptor antagonists for
        therapeutic use)
    Artery, disease
IT
```

```
(restenosis; phenylurea IL-8 receptor antagonists for therapeutic use)
   IT
        Shock (circulatory collapse)
           (septic; phenylurea IL-8 receptor antagonists for therapeutic use)
   IT
        Hematopoietic precursor cell
           (stem, undesired release; phenylurea IL-8 receptor antagonists for
           therapeutic use)
       Brain, disease
   IT
           (stroke; phenylurea IL-8 receptor antagonists for therapeutic use)
  IT
       Osteoporosis
          (therapeutic agents; phenylurea IL-8 receptor antagonists for
          therapeutic use)
       Shock (circulatory collapse)
  IT
          (toxic shock syndrome; phenylurea IL-8 receptor antagonists for
          therapeutic use)
  IT
       Brain, disease
          (trauma; phenylurea IL-8 receptor antagonists for therapeutic use)
  ΙT
       Intestine, disease
          (ulcerative colitis; phenylurea IL-8 receptor antagonists for
          therapeutic use)
       Interleukin 8 receptors
  IT
       RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
       (Biological study); PROC (Process)
          (.alpha.; phenylurea IL-8 receptor antagonists for therapeutic use)
       Interleukin 8 receptors
  IT
      RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
       (Biological study); PROC (Process)
         (.beta.; phenylurea IL-8 receptor antagonists for therapeutic use)
      311311-10-1P
 IT
                     311311-11-2P
                                    311311-12-3P
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
      (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
      (Reactant or reagent); USES (Uses)
         (phenylurea IL-8 receptor antagonists for therapeutic use)
      311311-09-8P
 IT
                     311311-13-4P
                                    311311-14-5P
                                                   311311-15-6P
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
      BIOL (Biological study); PREP (Preparation); USES (Uses)
         (phenylurea IL-8 receptor antagonists for therapeutic use)
      311311-16-7
                   311311-17-8
                                  311311-18-9 311311-19-0
                                                             311311-20-3
      311311-21-4
                   311311-22-5
                                  311311-23-6 311311-24-7
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
         (phenylurea IL-8 receptor antagonists for therapeutic use)
     19932-85-5P 55586-26-0P 98556-62-8P 260053-67-6P
IT
     311311-26-9P 311311-27-0P 311311-28-1P
                                                  311311-29-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (prepn. and reaction; phenylurea IL-8 receptor antagonists for
        therapeutic use)
     59-49-4, 2(3H)-Benzoxazolone 141-43-5, Ethanolamine, reactions
IT
     623-33-6, Glycine ethyl ester hydrochloride
                                                   13037-60-0,
     2-Bromophenylisothiocyanate 18162-48-6 21335-43-3,
     Chloromethylsulfonamide
                              22483-09-6, 2,2-Dimethoxyethylamine
     24424-99-5, BOC anhydride
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction; phenylurea IL-8 receptor antagonists for therapeutic use)
RE.CNT 4
             THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
```

RE

(1) Douglas; US 3914306 A 1975 HCAPLUS

(2) Meis; US 1953494 A 1934 HCAPLUS

(3) Ruettimann; US 5696290 A 1997 HCAPLUS

(4) Seifert; US 605977 A 1898

55586-26-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction; phenylurea IL-8 receptor antagonists for therapeutic use)

55586-26-0 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

L13 ANSWER 17 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN

2000:861450 HCAPLUS AN

134:25355 DN

Phenyl urea IL-8 receptor antagonists for therapeutic use ${ t TI}$

Palovich, Michael R.; Widdowson, Katherine L. IN

Smithkline Beecham Corporation, USA PA

PCT Int. Appl., 41 pp. SO CODEN: PIXXD2

DTPatent

LA English

ICM A61K IC

1-7 (Pharmacology) CC

Section cross-reference(s): 25, 27, 63

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. WO 2000072800. PI20001207 A2 WO 2000-US14655 20000526 WO 2000072800 **A3** 20010308

W: CA, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PRAI US 1999-136666P 19990528

MARPAT 134:25355 OS

The invention discloses the use of Ph ureas in the treatment of disease AB states mediated by the chemokine, Interleukin-8 (IL-8). Prepn. of compds. of the invention is described. ST

phenyl urea prepn therapeutic interleukin 8 disease IT

Chemokine receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(CXCR1; phenylurea IL-8 receptor antagonists for therapeutic use)

Chemokine receptors IT

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(CXCR2; phenylurea IL-8 receptor antagonists for therapeutic use)

```
IT
        Intestine, disease
            (Crohn's; phenylurea IL-8 receptor antagonists for therapeutic use)
   IT
        Sepsis
           (Gram-neg.; phenylurea IL-8 receptor antagonists for therapeutic use)
   IT
        mRNA
        RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
        (Biological study); PROC (Process)
           (TNF-.alpha. and IL-1.beta.; phenylurea IL-8 receptor antagonists for
           therapeutic use)
        Respiratory distress syndrome
   IT
           (adult; phenylurea IL-8 receptor antagonists for therapeutic use)
   IT
        Transplant rejection
           (allotransplant; phenylurea IL-8 receptor antagonists for therapeutic
           use)
       Antiarteriosclerotics
   IT
           (antiatherosclerotics; phenylurea IL-8 receptor antagonists for
          therapeutic use)
       Dermatitis
  IT
          (atopic; phenylurea IL-8 receptor antagonists for therapeutic use)
  IT
       Lung, disease
          (chronic obstructive; phenylurea IL-8 receptor antagonists for
          therapeutic use)
  IT
       Brain
          (cortex; phenylurea IL-8 receptor antagonists for therapeutic use)
  IT
       Drugs
          (gastrointestinal; phenylurea IL-8 receptor antagonists for therapeutic
          use)
  IT
      Gingiva
          (gingivitis; phenylurea IL-8 receptor antagonists for therapeutic use)
 IT
      Kidney, disease
          (glomerulonephritis; phenylurea IL-8 receptor antagonists for
         therapeutic use)
      Transplant and Transplantation
 IT
         (graft-vs.-host reaction; phenylurea IL-8 receptor antagonists for
         therapeutic use)
 IT
      Brain
         (hippocampus; phenylurea IL-8 receptor antagonists for therapeutic use)
 {\tt IT}
      Intestine, disease
         (inflammatory; phenylurea IL-8 receptor antagonists for therapeutic
 IT
      Reperfusion
         (injury, cardiac and renal; phenylurea IL-8 receptor antagonists for
         therapeutic use)
IT
     Angiogenesis
     Angiogenesis inhibitors
     Anti-Alzheimer's agents
     Anti-inflammatory agents
     Antiarthritics
     Antiasthmatics
     Cardiovascular agents
     Drug delivery systems
     Malaria
     Psoriasis
     Thrombosis
        (phenylurea IL-8 receptor antagonists for therapeutic use)
IT
     Chemokines
    Interleukin 1.beta.
    Interleukin 8
```

```
Tumor necrosis factors
       RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
       (Biological study); PROC (Process)
          (phenylurea IL-8 receptor antagonists for therapeutic use)
       Heart, disease
  IT
       Kidney, disease
          (reperfusion injury; phenylurea IL-8 receptor antagonists for
          therapeutic use)
  IT
       Artery, disease
          (restenosis; phenylurea IL-8 receptor antagonists for therapeutic use)
  IT
       Shock (circulatory collapse)
          (septic; phenylurea IL-8 receptor antagonists for therapeutic use)
  IT
       Hematopoietic precursor cell
          (stem, undesired release; phenylurea IL-8 receptor antagonists for
         therapeutic use)
      Brain, disease
  IT
          (stroke; phenylurea IL-8 receptor antagonists for therapeutic use)
      Osteoporosis
  IT
         (therapeutic agents; phenylurea IL-8 receptor antagonists for
         therapeutic use)
      Shock (circulatory collapse)
 IT
         (toxic shock syndrome; phenylurea IL-8 receptor antagonists for
         therapeutic use)
      Brain, disease
 IT
         (trauma; phenylurea IL-8 receptor antagonists for therapeutic use)
 IT
      Intestine, disease
         (ulcerative colitis; phenylurea IL-8 receptor antagonists for
         therapeutic use)
      Interleukin 8 receptors
 IT
      RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
      (Biological study); PROC (Process)
         (.alpha.; phenylurea IL-8 receptor antagonists for therapeutic use)
IT
     Interleukin 8 receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
      (Biological study); PROC (Process)
        (.beta.; phenylurea IL-8 receptor antagonists for therapeutic use)
     103-49-1P, Dibenzylamine
IT
                                311311-88-3P
                                               311311-89-4P
     311311-91-8P
                    311311-92-9P
                                   311311-93-0P
                                                  311311-94-1P 311311-95-2P
     311311-96-3P 311311-97-4P
                                   311311-98-5P 311311-99-6P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (phenylurea IL-8 receptor antagonists for therapeutic use)
     19932-85-5P 55586-26-0P
{\tt IT}
                             98556-62-8P 260053-67-6P
     311311-26-9P 311311-27-0P
                                   311311-28-1P
                                                 311311-29-2P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (prepn. and reaction; phenylurea IL-8 receptor antagonists for
       therapeutic use)
    59-49-4, 2(3H)-Benzoxazolone 100-61-8, reactions
IT
    Diisopropylamine 109-89-7, Diethylamine, reactions
                                                         108-18-9,
    Piperidine, reactions 123-75-1, Pyrrolidine, reactions
                                                           110-89-4,
    N,N,N'-Trimethylethylenediamine 306-37-6, N,N'-Dimethylhydrazine
                                                               142-25-6,
    dihydrochloride 3433-37-2, 2-Hydroxymethylpiperidine 4543-96-8,
    N,N,N'-Trimethyl-1,3-diaminopropane 6638-79-5
                                                      13037-60-0,
    2-Bromophenylisothiocyanate
                                  18162-48-6 24424-99-5, BOC anhydride
    60717-51-3
                 81310-55-6
    RL: RCT (Reactant); RACT (Reactant or reagent)
```

(reaction; phenylurea IL-8 receptor antagonists for therapeutic use) IT 55586-26-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction; phenylurea IL-8 receptor antagonists for therapeutic use)

55586-26-0 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

L13 ANSWER 18 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN

2000:161249 HCAPLUS AN

132:194197 DN

Preparation of 3-hydroxy-4-amino-benzonitrile and urea derivatives \mathtt{TI}

Baine, Neil H.; Clark, William M. Jr.; Eldridge, Ann Marie IN PA

Smithkline Beecham Corporation, USA

PCT Int. Appl., 17 pp. SO CODEN: PIXXD2

 \mathtt{DT} Patent

English LA

ICM C07C273-02 IC

ICS C07C275-28; C07C255-49; C07D213-02; C07D263-54

25-21 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CCFAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2000012468 ΡI 20000309 A1 WO 1999-US19492 19990826 W: CA, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

CA 2341718 AΑ 20000309 CA 1999-2341718 19990826 EP 1107948 20010620 A1 EP 1999-943936

19990826 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

JP 2002523487 T2 20020730 JP 2000-567502 PRAI US 1998-98249P 19990826 19980828 P

WO 1999-US19492 W 19990826

CASREACT 132:194197; MARPAT 132:194197 OS

GI

$$Y_n \xrightarrow{O}_{N \atop H} \xrightarrow{N}_{H} (R^1)_m$$

- Ureas [I; R = moiety having an ionizable H and pKa<10; R1, Y = H, halo, NO2, cyano, alkyl, haloalkyl, alkenyl, alkoxy, haloalkoxy, N3, OH, aralkyl, aralkenyl, aryloxy, etc.; m = 0-3; n undefined], were prepd. by contacting hydroxyanilines (II; A = acid moiety) with an isocyanate in the hydroxybenzonitrile.TFA (prepn. given) and piperidine in MeCN were treated 4-cyanophenyl) urea.

 ST hydroxyaminobenzonitrile.
- ST hydroxyaminobenzonitrile prepn reaction; arylurea prepn; urea hydroxycyanophenyl bromophenyl prepn
- Nitriles, preparation
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

 (arom.; prepn. of 3-hydroxy-4-amino-benzonitrile and urea derivs.

 IT 57-13-6P Urea Preparation

- 182499-07-6P 182499-37-2P 260044-22-2P 260044-23-3P (Preparation); PREP
- (prepn. of 3-hydroxy-4-amino-benzonitrile and urea derivs. thereof)

 59-49-4, 2(3H)-Benzoxazolone 1592-00-3, 2-Bromophenyl isocyanate

 19932-84-4 19932-87-7 260053-67-6

 RL: RCT (Reactant); RACT (Reactant or reagent)
- (prepn. of 3-hydroxy-4-amino-benzonitrile and urea derivs. thereof)
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
- (prepn. of 3-hydroxy-4-amino-benzonitrile and urea derivs. thereof)
 RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
- (1) Easson, A; The Search for Chemotherapeutic Amidines Part XVIII 1961, P1029
- (2) Murase; US 4457872 A 1984 HCAPLUS
- (3) Widdowson; US 5886044 A 1999 HCAPLUS
- IT 55586-26-0DP, salts 260053-68-7P
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of 3-hydroxy-4-amino-benzonitrile and urea derivs. thereof)
 RN 55586-26-0 HCAPLUS
- CN Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME)

260053-68-7 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy-, mono(trifluoroacetate) (salt) (9CI) (CA CN

CM 1

55586-26-0 CRN CMF C7 H6 N2 O

CM 2

CRN 76-05-1 C2 H F3 O2 CMF

L13 ANSWER 19 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN

2000:161242 HCAPLUS AN

132:180375 DN

Process for making 2-amino-5-cyanophenol \mathtt{TI}

Labaw, Clifford S.; Shilcrat, Susan C.

Smithkline Beecham Corporation, USA PA

PCT Int. Appl., 13 pp. SO

CODEN: PIXXD2

DTPatent

LA English IC

ICM C07C211-45 ICS C07C215-56; C07C255-50

25-20 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

FAN.CNT 1

CC

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2000012461 PI20000309 **A**1 WO 1999-US19494 19990826 W: CA, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, CA 2341711 20000309 AA CA 1999-2341711 19990826 EP 1107943 20010620 **A1** EP 1999-943937 19990826 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

HARDEE 10/052967 10/1/03 Page 66 JP 2003525856 20030902 T2 JP 2000-567496 PRAI US 1998-98335P 19990826 19980828 WO 1999-US19494 19990826 CASREACT 132:180375 OS This invention relates to a process for prepg. 2-amino-5-cyanophenol which AB comprises bromination of o-anisidine followed by cyanation of the resulting 2-methoxy-4-bromoaniline, and demethylation of 2-methoxy-4-cyanoaniline. The title compd. is useful for making certain Ph urea compds. aminocyanophenol prepn manufg ST59557-91-4P IT 177476-76-5P 259547-35-8P RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (process for making 2-amino-5-cyanophenol) **55586-26-0P**, 2-Amino-5-cyanophenol IT RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (process for making 2-amino-5-cyanophenol) 90-04-0, o-Anisidine 615-36-1, 2-Bromoaniline IT RL: RCT (Reactant); RACT (Reactant or reagent) (process for making 2-amino-5-cyanophenol) RE.CNT THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD RE(1) Benton; J Amer Chem Soc 1942, V64, P1128 HCAPLUS (2) Fraser; J Org Chem 1976, V41, P170-171 HCAPLUS (3) Newman; J Amer Cham Soc 1976, V98(11), P3237 HCAPLUS (4) Newman, M; .alpha.-Napthonitrile Org Syn Col 1955, V3, 6, and 8, P212 55586-26-0P, 2-Amino-5-cyanophenol RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (process for making 2-amino-5-cyanophenol) RN55586-26-0 HCAPLUS Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CNCN H₂N OH ANSWER 20 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13 1999:511161 HCAPLUS AN 131:153732 DN Synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex TIinteractions for use as antineoplastic agents Board of Regents, the University of Texas System, USA PASO PCT Int. Appl., 84 pp. CODEN: PIXXD2 DTPatent English LA ICM C07D498-00 IC 1-6 (Pharmacology) CC Section cross-reference(s): 3, 28 FAN. CNT 1

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PATENT NO.
                       KIND
                             DATE
                                            APPLICATION NO.
                                                             DATE
PI
     WO 9940093
                             19990812
                       A2
                                            WO 1999-US2400
     WO 9940093
                                                             19990204
                             20000127
                       A3
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
             MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9926574
                            19990823
                       A1
                                           AU 1999-26574
                                                             19990204
     US 6528517
                       B1
                            20030304
                                           US 1999-245019
                                                            19990204
PRAI US 1998-73658P
                       P
                            19980204
    WO 1999-US2400
                            19990204
                       W
    CASREACT 131:153732; MARPAT 131:153732
OS
GI
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The invention discloses a novel quinobenzoxazine self-assembly complex on ABDNA and on the topoisomerase II-DNA complex. The related model is used to design and synthesize a new series of quinobenzoxazines, pyridobenzophenoxazines, pyridonaphthophenoxazines, and other related compds. (I) [m, m', n, n' = independently 0, 1, 2; A = 0, S, C; B, C =independently N, O, S, C, CH, CH2; X = H or halo; W = H, NO2, NH2, alkyl amino, haloalkyl, or halo; Z = halo or N-contg. C1-6 group; R1 = H or carboxy-protecting group; R2 = H, halo, C1-6 alkyl] that may exhibit anticancer or antibiotic activity. Thus, Et 2,3,4,5tetrafluorobenzoylacetate was loaded on a solid support resin by transesterification and refluxed in toluene in the presence of catalytic amts. of DMAP to form the solid-bound .beta.-ketoester. The ester was treated with DMF di-Me acetal followed by 2-aminophenol in the presence of pyridine to generate the resin-bound enaminoketoester. The product was cyclized and further derivatized in three steps to yield 1-(S)-(3-aminopyrrolidin-1-yl)-2-fluoro-4-oxo-4H-pyrido[3,2,1k,l]phenoxazine-5-carboxylic acid TFA salt (II.CF3CO2H). The anticancer activity of these compds. is thought to operate via stabilization of the topoisomerase II-DNA complex and/or interaction with G-quadruplexes, while the antibiotic activity of these compds. derives from their ability to inhibit gyrase, the bacterial type II topoisomerase. Decatenation inhibition, DNA unwinding, and cytotoxicity data for selected pyridobenzophenoxazines were given. For example, topoisomerase II inhibition was reported with IC50 values ranging from 0.22 to 1.84 .mu.M. quinobenzoxazine pyridobenzophenoxazine pyridonaphthophenoxazine ST antibiotic anticancer prepn; G quadruplex interaction compd; topoisomerase II DNA gyrase inhibition Structure-activity relationship IT(DNA topoisomerase II-inhibiting; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) IT

Intestine, neoplasm Intestine, neoplasm

(colon, inhibitors; synthesis of quinobenzoxazine analogs with

Page 68 topoisomerase II and quadruplex interactions for use as antineoplastic Antitumor agents IT(colon; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) Antitumor agents IT (lung non-small-cell carcinoma; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) Antitumor agents ΙT (lymphoma; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) Antitumor agents IT (mammary gland; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic Antitumor agents IT (melanoma; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) Mammary gland IT Mammary gland Prostate gland Prostate gland (neoplasm, inhibitors; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) Lung, neoplasm IT Lung, neoplasm (non-small-cell carcinoma, inhibitors; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) Antitumor agents IT (prostate gland; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic Antibiotics IT Antitumor agents (synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) 142805-56-9, Topoisomerase II ITRL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process) (inhibition; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) 99735-29-2DP, resin-supported ester IT 216501-07-4P 216501-08-5P 216501-10-9P 216501-14-3P 216501-16-5P 216501-18-7P 216501-22-3P 216501-20-1P 216501-24-5P 237425-14-8DP, resin-supported ester 237425-15-9DP, resin-supported ester 237425-16-0DP, resin-supported 237425-18-2P 237425-19-3P 237425-20-6P 237425-21-7P 237425-22-8P 237425-23-9P 237425-24-0P 237425-25-1P 237425-27-3P 237425-28-4P 237425-26-2P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; synthesis of quinobenzoxazine analogs with topoisomerase

1-Amino-2-naphthol hydrochloride 2033-24-1, 2,2-Dimethyl-1,3-dioxane-4,6-

606-41-7, 2-Amino-1-naphthol

II and quadruplex interactions for use as antineoplastic agents)

95-55-6, 2-Aminophenol

IT

9003-53-6D, Polystyrene, Wang resin 56432-31-6 57260-71-6, tert-Butyl 1-piperazinecarboxylate 94695-48-4, 2,3,4,5-Tetrafluorobenzoyl chloride 94695-50-8, Ethyl 2,3,4,5-tetrafluorobenzoylacetate 99724-19-3 237425-29-5 237425-30-8 237425-31-9 237425-32-0 237425-35-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents)

216501-43-8P IT 216501-45-0P 216501-47-2P 237424-87-2P 237424-91-8P 237424-93-0P 237424-95-2P 237424-89-4P 237424-97-4P 237425-00-2P 237425-01-3P 237425-02-4P 237424-99-6P 237425-03-5P 237425-06-8P 237425-04-6P 237425-07-9P 237425-08-0P 237425-09-1P 237425-11-5P 237425-13-7P 237425-10-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents)

70458-96-7, Norfloxacin IT155035-57-7 216501-12-1 216501-29-0 216501-27-8 216501-31-4 216501-33-6 216501-35-8 216501-39-2 216501-37-0 216501-41-6

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents) 237425-29-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; synthesis of quinobenzoxazine analogs with topoisomerase II and quadruplex interactions for use as antineoplastic agents)

237425-29-5 HCAPLUS RN

IT

Carbamic acid, [(4-amino-3-hydroxyphenyl)methyl]-, 2-(trimethylsilyl)ethyl CNester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2-\text{NH}-\text{C}-\text{O}-\text{CH}_2-\text{CH}_2-\text{SiMe}_3 \\ \text{H}_2\text{N} \\ \text{OH} \end{array}$$

- ANSWER 21 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13
- 1999:205323 HCAPLUS AN
- 130:267221 DN
- Preparation of phenylureas as IL-8 receptor antagonists TI
- Widdowson, Katherine Louisa; Veber, Daniel Frank; Jurewicz, Anthony IN Joseph; Hertzberg, Robert Phillip; Rutledge, Melvin Clarence, Jr.
- Smithkline Beecham Corporation, USA PA
- U.S., 43 pp., Cont.-in-part of U.S. Ser. No. 390,260, abandoned. SO
- DTPatent
- LA English
- IC ICM A61K031-17

514596000 NCL

25-21 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC Section cross-reference(s): 1

FAN.	CNT 4
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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
os	US 5886044 US 5780483 US 6211373 US 6262113 US 6180675 US 1995-390260 WO 1996-US2260 US 1996-641990 US 1996-701299 WO 1996-US13632 MARPAT 130:267221	A A B1 B1 B2 W A2 A3	19990323 19980714 20010403 20010717 20010130 19950217 19960216 19960320 19960821 19960821	US 1996-641990 US 1996-701299 US 1998-111663 US 1998-125279 US 1999-240354	19960320 19960821 19980708 19980814 19990129
1	US 5780483 US 6211373 US 6262113 US 6180675 US 1995-390260 WO 1996-US2260 US 1996-641990 US 1996-701299 WO 1996-US13632	A B1 B1 B2 W A2 A3	19980714 20010403 20010717 20010130 19950217 19960216 19960320 19960821	US 1996-701299 US 1998-111663 US 1998-125279	19960821 19980708 19980814

$$\begin{bmatrix} Y \\ n \end{bmatrix}_{n} \qquad X \qquad \begin{bmatrix} R^{1} \\ M \end{bmatrix}_{m}$$

The title compds. [I; X = O, S; R = OH; R1 = H, halo, NO2, etc.; Y = H, ABhalo, CN, etc.; n = 1-3; m = 1-3], useful in the treatment of disease states mediated by the chemokine, interleukin-8 (IL-8), such as psoriasis, atopic dermatitis, asthma, chronic obstructive pulmonary disease, ARDS, arthritis, inflammatory bowel disease, Crohn's disease, ulcerative colitis, septic shock, toxic shock syndrome, stroke, cardiac and renal reperfusion injury, restenosis, angiogenesis, glomerulonephritis, thrombosis, Alzheimer's disease, graft vs. host reaction, allograft rejection, etc., were prepd. E.g., reaction of Me 4-amino-3hydroxybenzoate with Ph isocyanate afforded 90% I [R = OH; R1 = 4-(MeOCO); Y = H; m = 1]. All exemplified compds. I showed IC50 from 45 to <1 .mu./mL for IL-8 receptor inhibition. Compds. I were also found to be inhibitors of Gro-.alpha. binding at about the same level.

phenylurea prepn interleukin 8 antagonist; psoriasis phenylurea prepn; STatopic dermatitis phenylurea prepn; antiasthmatic phenylurea prepn; chronic obstructive pulmonary disease phenylurea prepn; antiarthritic phenylurea prepn; inflammatory bowel disease phenylurea prepn; Crohn's disease phenylurea prepn; ulcerative colitis phenylurea prepn; septic shock phenylurea prepn; toxic shock syndrome phenylurea prepn; stroke phenylurea prepn; reperfusion injury cardiac renal phenylurea prepn; restenosis phenylurea prepn; angiogenesis phenylurea prepn; glomerulonephritis phenylurea prepn; antithrombotic phenylurea prepn; Alzheimer's disease phenylurea prepn; graft versus host reaction phenylurea prepn; allograft rejection phenylurea prepn; gro alpha chemokine inhibitor phenylurea prepn; MGSA chemokine inhibitor phenylurea

Chemokine receptors IT

RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL

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(Biological study)
           (CXCR1; prepn. of phenylureas as IL-8 receptor antagonists)
  IT
       Chemokine receptors
       RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL
       (Biological study)
          (CXCR2; prepn. of phenylureas as IL-8 receptor antagonists)
       Intestine, disease
  IT
          (Crohn's, treatment of; prepn. of phenylureas as IL-8 receptor
          antagonists)
       Respiratory distress syndrome
  IT
          (adult, treatment of; prepn. of phenylureas as IL-8 receptor
          antagonists)
       Transplant rejection
  IT
          (allotransplant, treatment of; prepn. of phenylureas as IL-8 receptor
          antagonists)
  IT
       Dermatitis
          (atopic, treatment of; prepn. of phenylureas as IL-8 receptor
          antagonists)
 IT
      Lung, disease
          (chronic obstructive, treatment of; prepn. of phenylureas as IL-8
         receptor antagonists)
      Kidney, disease
 IT
         (glomerulonephritis, treatment of; prepn. of phenylureas as IL-8
         receptor antagonists)
      Transplant and Transplantation
 IT
         (graft-vs.-host reaction, treatment of; prepn. of phenylureas as IL-8
         receptor antagonists)
      Intestine, disease
 ΙT
         (inflammatory, treatment of; prepn. of phenylureas as IL-8 receptor
         antagonists)
      Melanoma growth-stimulating activity-.alpha.
 IT
      RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL
      (Biological study)
         (inhibitors of Gro-.alpha. binding; prepn. of phenylureas as IL-8
         receptor antagonists)
     Reperfusion
IT
         (injury, treatment of cardiac and renal reperfusion injury; prepn. of
        phenylureas as IL-8 receptor antagonists)
     Antiarthritics
     Antiasthmatics
     Anticoagulants
         (prepn. of phenylureas as IL-8 receptor antagonists)
ΙT
     Artery, disease
        (restenosis, treatment of; prepn. of phenylureas as IL-8 receptor
        antagonists)
     Shock (circulatory collapse)
ΙT
        (septic, treatment of; prepn. of phenylureas as IL-8 receptor
        antagonists)
     Brain, disease
IT
        (stroke, treatment of; prepn. of phenylureas as IL-8 receptor
        antagonists)
     Shock (circulatory collapse)
IT
        (toxic shock syndrome, treatment of; prepn. of phenylureas as IL-8
        receptor antagonists)
    Alzheimer's disease
IT
    Angiogenesis
    Psoriasis
        (treatment of; prepn. of phenylureas as IL-8 receptor antagonists)
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Intestine, disease
  IT
          (ulcerative colitis, treatment of; prepn. of phenylureas as IL-8
          receptor antagonists)
       Interleukin 8 receptors
  IT
       RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL
       (Biological study)
          (.alpha.; prepn. of phenylureas as IL-8 receptor antagonists)
      Interleukin 8 receptors
  IT
      RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL
       (Biological study)
         (.beta.; prepn. of phenylureas as IL-8 receptor antagonists)
 IT
                     182497-99-0P
                                    182498-79-9P
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      study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
      (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
      (Reactant or reagent); USES (Uses)
         (prepn. of phenylureas as IL-8 receptor antagonists)
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                                  182499-68-9P 182499-69-0P
     182499-71-4P
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                   182499-72-5P
                                  182501-57-1P 182700-31-8P 222172-42-1P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of phenylureas as IL-8 receptor antagonists)
    62-53-3, Aniline, reactions 86-84-0, 1-Naphthyl isocyanate
IT
    2-Phenylaminocarbonylphenol 88-67-5, 2-Iodobenzoic acid
                                                                   87-17-2,
    2-Phenylphenol
                                                                90-43-7,
                     91-93-0 95-54-5, 1,2-Benzenediamine, reactions
    95-55-6, 2-Aminophenol 98-09-9, Phenylsulfonyl chloride
    99-56-9, 4-Nitro-1,2-phenylenediamine 99-57-0, 5-Nitro-2-hydroxyaniline
    100-46-9, Benzylamine, reactions 103-71-9, Phenyl isocyanate, reactions
    106-40-1, 4-Bromoaniline 116-63-2 117-77-1, 2-Hydroxy-3-
    aminoanthraquinone
                       117-99-7 121-51-7, 3-Nitrobenzenesulfonyl chloride
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121-60-8, 4-Acetamidophenylsulfonyl chloride 121-88-0, 2-Amino-5-nitrophenol 137-07-5, 2-Aminothiophenol 274-09-9, 1,3-Benzodioxole 320-76-3 329-01-1, 3-Trifluoromethylphenyl isocyanate 385-01-3, 2-Nitro-3-fluorophenol 394-31-0, 2-Amino-5-hydroxybenzoic acid 394-33-2, 4-Fluoro-2-nitrophenol 400-98-6, 4-Amino-3nitrobenzotrifluoride 400-99-7, 4-Trifluoromethyl-2-nitrophenol 444-30-4, 2-Trifluoromethylphenol 446-36-6, 5-Fluoro-2-nitrophenol 534-85-0, 2-Anilinoaniline 570-23-0, 2-Hydroxy-3-aminobenzoic acid 576-24-9, 2,3-Dichlorophenol 580-51-8, 3-Phenylphenol 583-17-5, 2-Hydroxycinnamic acid 588-30-7, 3-Hydroxycinnamic acid 2-Hydroxy-3-nitroaniline 609-89-2, 4,6-Dichloro-2-nitrophenol 603-87-2, 611-20-1, 2-Cyanophenol 614-68-6, 2-Methylphenyl isocyanate 2-Bromoaniline 618-45-1, 3-Isopropylphenol 620-17-7, 3-Ethylphenol 615-36-1, 644-35-9, 2-n-Propylphenol 700-38-9, 2-Nitro-5-methylphenol 2-Methoxyphenyl isocyanate 776-04-5, 2-(Trifluoromethyl)benzenesulfonyl chloride 837-95-6, 2-Nitro-4-trifluoromethylbenzenesulfonyl chloride 873-62-1, 3-Cyanophenol 1548-13-6, 4-Trifluoromethylphenyl isocyanate 1592-00-3, 2-Bromophenyl isocyanate 1623-92-3, 4-Phenoxyphenylsulfonyl 1899-93-0 1939-99-7, Benzylsulfonyl chloride 3-Cyanoaniline 2237-30-1, 2243-42-7, 2-Phenoxybenzoic acid 2-Trifluoromethylphenyl isocyanate 2374-03-0, 3-Hydroxy-4-aminobenzoic 2493-02-9, 4-Bromophenyl isocyanate 2612-57-9, 2,4-Dichlorophenyl isocyanate 2834-92-6, 1-Amino-2-hydroxynaphthalene 2-Hydroxy-4-methylaniline 3272-08-0, 2-Nitro-4-cyanophenol 2-Chlorophenyl isocyanate 3320-86-3, 2-Nitrophenyl isocyanate 4091-26-3, Styrylsulfonyl chloride 5395-71-1, 2-Ethoxyphenyl isocyanate 5417-63-0, 3-Amino-2-hydroxynaphthalene 6272-38-4, 2-Benzyloxyphenol 6344-59-8, 1-Hydroxy-2-nitrofluorene 3-Hydroxybenzophenone 13020-57-0, 16629-19-9, 2-Thiophenesulfonyl chloride 16744-98-2, 2-Fluorophenyl isocyanate 17337-13-2, 2-Phenylphenyl isocyanate 17573-92-1, 3-Methoxythiophene 17802-02-7, 3-Chloro-2-nitrophenol 18493-15-7 18704-37-5, 8-Quinolinesulfonyl chloride 18908-07-1, 3-Methoxyphenyl isocyanate 21286-54-4 23095-31-0, 3,4-Dimethoxyphenylsulfonyl chloride 23138-55-8, 3-Bromophenyl isocyanate 24615-22-3 35821-29-5 39234-86-1 39262-22-1 40398-01-4, 2-Chloro-6-methylphenyl isocyanate 40411-25-4, 2-Ethylphenyl isocyanate 41195-90-8, 2,3-Dichlorophenyl 52260-30-7, 2-Methylthiophenyl isocyanate 55076-90-9, 2,4-Dibromophenyl isocyanate 63435-16-5, Methyl 4-amino-3hydroxybenzoate 65295-69-4, 2,6-Difluorophenyl isocyanate 2-Acetamido-4-methyl-5-thiazolesulfonyl chloride 69812-29-9, 82419-26-9, 2,3-Difluoro-6-nitrophenol 99968-81-7, 3-Iodo-2-hydroxyaniline 126714-85-0, 2,3-Dichlorothiophene-5-sulfonyl chloride 146224-62-6, 5-Aminocarbonyl-2-aminophenol 182500-26-1, 2-Trifluoromethoxyphenyl 182500-27-2, 2-Amino-5,6-diphenylphenol 182500-30-7, 3,5,6-Trifluoro-2-hydroxyaniline 182500-29-4 182500-31-8, 4-Trifluoromethyl-3-fluoro-2-hydroxyaniline 183513-64-6 RL: RCT (Reactant); RACT (Reactant or reagent) 201532-49-2 (prepn. of phenylureas as IL-8 receptor antagonists) 399-97-3P 402-17-5P 454-81-9P 454-82-0P 527-62-8P 1548-62-5P 1214-44-4P 4291-30-9P 4363-03-5P 5768-39-8P, 1,3-Benzodioxole-4carboxylic acid 7256-03-3P 14543-43-2P 15864-32-1P 18495-15-3P 18062-89-0P 28165-60-8P 28177-79-9P 31684-63-6P 43200-31-3P 38191-33-2P 43200-46-0P 53442-24-3P 53981-23-0P 55586-26-0P 53981-24-1P 60166-83-8P 67608-57-5P 68507-91-5P 72534-45-3P 86981-08-0P 87186-71-8P 87376-34-9P 101664-28-2P 115023-64-8P 115023-65-9P 115551-33-2P 92554-96-6P 139729-85-4P 116278-69-4P 152998-95-3P 153506-06-0P 182499-74-7P 182499-76-9P

IT

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HARDEE 10/052967
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                                                      182499-86-1P
        182499-88-3P
                                                                     182499-87-2P
                       182499-89-4P
                                      182499-90-7P
                                                      182499-91-8P
        182499-93-0P
                                                                     182499-92-9P
                       182499-94-1P
                                      182499-95-2P
                                                      182499-96-3P
        182499-98-5P
                                                                     182499-97-4P
                       182499-99-6P
                                      182500-00-1P
                                                      182500-01-2P
        182500-03-4P
                                                                     182500-02-3P
                       182500-04-5P
                                      182500-05-6P
                                                      182500-06-7P
        182500-08-9P
                                                                     182500-07-8P
                       182500-09-0P
                                      182500-10-3P
                                                     182500-11-4P
        182500-13-6P
                                                                     182500-12-5P
                       182500-14-7P
                                      182500-15-8P
                                                     182500-16-9P
        182500-18-1P
                                                                     182500-17-0P
                       182500-19-2P
                                      182500-20-5P
                                                     182500-21-6P
       182500-23-8P
                                                                     182500-22-7P
                       182500-24-9P
                                      182500-25-0P
                                                     182700-32-9P
       RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
           (prepn. of phenylureas as IL-8 receptor antagonists)
  RE.CNT 70
                THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD
  RE
  (1) Adams; US 5447957 1995 HCAPLUS
  (2) Anon; GB 1210596 1970
  (3) Anon; CH 506240 1971 HCAPLUS
  (4) Anon; GB 1281437 1972 HCAPLUS
  (5) Anon; GB 1393854 1973 HCAPLUS
  (6) Anon; DE 2241470 1973 HCAPLUS
  (7) Anon; JP 55098152 1980 HCAPLUS
  (8) Anon; CA 1157022 1983 HCAPLUS
  (9) Anon; CA 1166252 1984 HCAPLUS
  (10) Anon; JP 60126256 1985 HCAPLUS
  (11) Anon; DE 253997 Al 1988
  (12) Anon; JP 02009827 1990 HCAPLUS
  (13) Anon; JP 03215848 1992 HCAPLUS
  (14) Anon; EP 467185 1992 HCAPLUS
  (15) Anon; EP 0541112 1993 HCAPLUS
 (16) Anon; EP 0561687 1993 HCAPLUS
 (17) Anon; AU 93134950 1993
 (18) Anon; WO 9314146 1993 HCAPLUS
 (19) Anon; WO 9316992 1993 HCAPLUS
 (20) Anon; JP 06313992 1994 HCAPLUS
 (21) Anon; WO 9407507 1994 HCAPLUS
 (22) Anon; WO 9422807 1994 HCAPLUS
 (23) Anon; WO 9610213 1996 HCAPLUS
 (24) Ayral-Kaloustian; US 5312831 1994 HCAPLUS
 (25) Broome; Ind Chem Belge 1967, V32 HCAPLUS
 (26) Carini; J Med Chem 1990, V33(5), P1330 HCAPLUS
 (27) Christove, A; Dokl Bolg Akad Nauk 1986, V39(3), P125
 (28) Conrow; US 4591604 1986 HCAPLUS
 (29) Conrow; US 4608205 1986 HCAPLUS
(30) Craig; Drug Metab Dispos 1989, V17(3), P345 HCAPLUS
(31) Dieter; US 5384330 1995 HCAPLUS
(32) Dixon; US 5470882 1995 HCAPLUS
(33) Ferrini; US 5384319 1995 HCAPLUS
(34) Franke, R; Dokl Bolg Akad Nauk 1979, V32(3), P369 HCAPLUS
(35) Galabov; US 4048333 1977 HCAPLUS
(36) Galabov, A; J Med Chem 1980, V23(9), P1048 HCAPLUS
(37) Galabov, A; Probl Infect Parasit Dis 1979, V7, P19 HCAPLUS
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(39) Hauptmann; 1988 HCAPLUS
(40) Hauptmann; 1988, 25, P816 HCAPLUS
(41) Hiles; Toxical Appl Pharm 1978, V46(2), P323 HCAPLUS
(42) Holland; US 3855285 1974 HCAPLUS
(43) Holland; US 3856951 1974 HCAPLUS
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- (44) Holland; US 3869553 1975 HCAPLUS
- (45) Holland; US 3882230 1975 HCAPLUS
- (46) Iwamura; Phytochemistry 1980, V19(7), P1309 HCAPLUS
- (47) Jeffcoat; Drug Metab Dispos 1980, V5(2), P157
- (48) Kabbe; US 4405644 1983 HCAPLUS
- (49) Krause, G; Biochem Physiol Pflanz 1979, V174(2), P128 HCAPLUS
- (50) Lozanova; Dokl Bulg Akad Nauk 1993, V46(11), P85 HCAPLUS
- (51) Magnoli; US 3996253 1976 HCAPLUS
- (52) Marschner; US 5585518 1996 HCAPLUS
- (53) Martin; US 2363074 1944 HCAPLUS
- (54) Mashev, N; Dokl Bolg Akad Nauk 1985, V38(1), P107 HCAPLUS
- (55) Mashev, N; Dokl Bolg Akag Nauk 1979, V32(11), P155
- (56) Nakov, B; Vasil Kolarov 1981, V26(4), P231 HCAPLUS
- (57) Patil; Indian J Pharm Sci 1987, V49(6), P229 HCAPLUS
- (58) Rao; J Ind Chem Soc 1973, VL, P492
- (59) Roy, S; Cell Immunol 1987, V105(1), P118 HCAPLUS
- (60) Schellenbaum; US 3689550 1972 HCAPLUS
- (61) Schuster, G; Math 1982, V31(4), P321 HCAPLUS
- (62) Schuster, G; Z Pflanzenkrankh 1983, V90(5), P500 HCAPLUS
- (63) Shultis; US 3332981 1967 HCAPLUS
- (64) Sueda; US 5621010 1997 HCAPLUS
- (65) Sugihara, T; Nippon Kasei Gakkaishi 1989, V40(8), P691 HCAPLUS
- (66) Sugihara, T; Nippon Kasei Gakkaishi 1992, V43(3), P207 HCAPLUS
- (67) Tanada; J Agric Food Chem 1979, V27(2), P311
- (68) Vasilev, G; Dokl Bolg Akad Nauk 1982, V35(8), P1141 HCAPLUS
- (69) Warren; Drug Metab Dispos 1978, V6(1), P38 HCAPLUS
- (70) Weigel; US 5275932 1994 HCAPLUS
- 55586-26-0P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of phenylureas as IL-8 receptor antagonists)

55586-26-0 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

- L13 ANSWER 22 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN
- 1999:96199 HCAPLUS
- 130:155251 DN
- Alkyl(hydroxybenzyl)amines, their preparation and use as anticorrosion TI agents for metal surfaces
- Schapira, Joseph; Cheminaud, Jean-Claude; Droniou, Patrick; Gasse, IN Jean-Jacques; Guimon, Michele; Bonnin, Joel; Gagnepain, Stephane CFPI Industries, Fr. PA
- PCT Int. Appl., 30 pp. SO CODEN: PIXXD2
- DTPatent
- LA French
- ICM C07C215-80 IC

ICS C07C215-50; C23F011-14; C09D005-08

45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes) CC Section cross-reference(s): 42 FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE PΙ WO 9905089 19990204 **A**1 WO 1998-FR1629 19980723 W: CA, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, FR 2766483 A1 19990129 FR 1997-9503 CN 1204646 19970725 19990113 Α CN 1998-103149 EP 998448 19980702 A1 20000510 EP 1998-940319 R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE, PT 19980723 JP 2001510820 20010807 T2 JP 2000-504091 PRAI FR 1997-9503 19980723 19970725 Α WO 1998-FR1629 W 19980723

 R^2N

MARPAT 130:155251

OS

GI

Rl

Ι The amines have the formula I [Q = OH, NH2; (each) R1 = C1-8 AB ((poly)hydroxy)alkyl; (each) R2 = H, C1-8 ((poly)hydroxy)alkyl; Y1 and/or Y2 = OH; Z = H, CH2NR1R2]. I act as reducing agents and as chelating

agents for Fe, and are useful on metal surfaces for prevention of corrosion and for improving subsequent paint adhesion. Thus, condensation of o-C6H4(OH)2 with HCHO and N-methylglucamine gave a I as an isomer mixt., which was effective as is and was not sepd. An aq. soln. contg. adipic acid 0.5, H3PO4 0.4, the I 1.0, soda 0.15 g/L and triethylenetetramine to pH 6.0 was applied to degreased and rinsed steel, dried, and coated with a com. paint to show excellent adhesion and

hydroxybenzylamine deriv corrosion inhibitor; primer hydroxybenzylamine STPrimers (paints) IT

(prepn. of alkyl(hydroxybenzyl)amines as adhesion promoters for metal surfaces)

ITGalvanized steel

RL: MSC (Miscellaneous)

(prepn. of alkyl(hydroxybenzyl)amines as anticorrosion agents for)

Corrosion inhibitors IT

Mannich reaction

(prepn. of alkyl(hydroxybenzyl)amines as anticorrosion agents for metal surfaces)

12597-69-2, Steel, miscellaneous IT

RL: MSC (Miscellaneous)

(prepn. of alkyl(hydroxybenzyl)amines as anticorrosion agents for) 220247-02-9P 220247-03-0P 220247-06-3P IT 220247-07-4P 220247-08-5P 220247-09-6P **220247-10-9P** 220247-11-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of alkyl(hydroxybenzyl)amines as anticorrosion agents for metal surfaces)

50-00-0, Formaldehyde, reactions 87-66-1, Pyrogallol 95-55-6, IT2-Aminophenol 109-83-1, 2-(Methylamino)ethanol

1,2-Benzenediol, reactions 6284-40-8, N-Methylglucamine

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of alkyl(hydroxybenzyl)amines as anticorrosion agents for metal surfaces)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Anon; Chem Zentralblatt 1929, V100(1), P2975
- (2) Anon; Journ Pharmac Soc Jap V49, P42
- (3) Barlin, G; Aust J Chem 1989, V42(12), P2191 HCAPLUS
- (4) Epstein, J; Journal of the American Chemical Society 1964, V86, P4959
- (5) Ici Plc; EP 0517356 A 1992 HCAPLUS
- (6) Jia, G; Synthesis of several catechol-methylamine derivatives 1991, V17
- (7) Lin, A; J Pharm Sci 1981, V70(7), P806 HCAPLUS
- (8) Nickoloff, B; Biochemistry 1985, V24(4), P999 HCAPLUS
- (9) Shanghai Yike Daxue Xuebao; Synthesis of several catechol-methylamine derivatives 1991, V18(1), P67
- (10) Zech, J; US 2802820 A 1957 HCAPLUS
- 220247-10-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of alkyl(hydroxybenzyl)amines as anticorrosion agents for metal surfaces)

220247-10-9 HCAPLUS RN

D-Glucitol, 1,1'-[(4-amino-5-hydroxy-1,3-phenylene)bis[methylene(methylimi CNno)]]bis[1-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

- ANSWER 23 OF 40 HCAPLUS L13 COPYRIGHT 2003 ACS on STN AN
- 1998:774255 HCAPLUS
- 130:10667 DN
- Preparation of hydroxyanilinocyclobutenediones as smooth muscle relaxants. TI
- Quagliato, Dominick A.; Matelan, Edward M.; Antane, Madelene M. IN
- American Home Products Corporation, USA PA

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HARDEE 10/052967
                       10/1/03
                                   Page 78
SO
     U.S., 6 pp.
     CODEN: USXXAM
DT
     Patent
     English
LĄ
     ICM A01N033-02
IC
     ICS A01N033-06; C07C051-16; C07C211-00
NCL
     514646000
     1-12 (Pharmacology)
CC
     Section cross-reference(s): 25
FAN. CNT 1
     PATENT NO.
                      KIND
                             DATE
                                            APPLICATION NO.
                                                              DATE
     US 5840764
PI
                       Α
                             19981124
                                            US 1998-7335
PRAI US 1998-7335
                                                              19980114
                            19980114
    MARPAT 130:10667
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GI
           - NH-
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$$R^{2}$$
 NH
 NH
 R^{4}
 NH
 R^{1}
 I

The title compds. I (R1 = alkyl, cycloalkyl, hydroxyalkyl, fluoroalkyl, or AB polyfluoroalkyl; R2, R3 and R4 = H, OH CN, halo, alkyl or hydroxyl) and their salts are prepd. as smooth muscle relaxants. I are useful for the treatment of incontinence and irritable bowel syndrome. hydroxyanilinocyclobutenedione deriv prepn smooth muscle relaxant; ST

incontinence treatment hydroxyanilinocyclobutenedione deriv; irritable bowel syndrome treatment hydroxyanilinocyclobutenedione deriv

IT

(incontinence; treatment with hydroxyanilinocyclobutenediones) Intestine, disease

IT

(irritable bowel syndrome; treatment with hydroxyanilinocyclobutenedion

Muscle relaxants IT

(smooth; hydroxyanilinocyclobutenediones)

18495-15-3P, 3-Hydroxy-4-nitrobenzonitrile **55586-26-0P** IT129298-23-3P 211172-51-9P 211172-52-0P 211172-53-1P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(intermediate in prepn. of hydroxyanilinocyclobutenedione deriv. smooth muscle relaxant)

211172-44-0P IT211172-45-1P 211172-48-4P 211172-55-3P 211172-57-5P 211172-56-4P 216147-99-8P 216148-00-4P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. as smooth muscle relaxant)

75-64-9, tert-Butylamine, reactions ΙT 594-39-8, tert-Amylamine 2835-97-4, 2-Amino-3-methylphenol 5231-87-8, Diethyl squarate 22526-47-2 66228-31-7 142596-50-7 177476-75-4, 3-Methoxy-4nitrobenzonitrile

RL: RCT (Reactant); RACT (Reactant or reagent)

HARDEE 10/052967 10/1/03 Page 79

> (reactant in prepn. of hydroxyanilinocyclobutenedione deriv. smooth muscle relaxant) 19

RE.CNT THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Algieri; US 4390701 1983 HCAPLUS
- (2) Anon; EP 426379 1990 HCAPLUS
- (3) Anon; EP 496561 1992 HCAPLUS
- (4) Antane; US 5464867 1995 HCAPLUS
- (5) Butera; US 5397790 1995 HCAPLUS
- (6) Butera; US 5401753 1995 HCAPLUS
- (7) Butera; US 5403853 1995 HCAPLUS
- (8) Butera; US 5403854 1995 HCAPLUS
- (9) Butera; US 5466712 1995 HCAPLUS
- (10) Butera; US 5506252 1996 HCAPLUS
- (11) Chandrakumar; US 5354746 1994 HCAPLUS
- (12) Ehrhardt; Chem Ber 1977, V110, P2506 HCAPLUS
- (13) Kinney; US 5240946 1993 HCAPLUS
- (14) Kinney; J Med Chem 1992, V35, P4720 HCAPLUS
- (15) Neuse; Liebigs Ann Chem 1973, P619 HCAPLUS
- (16) Nobara; US 4673747 1987 HCAPLUS
- (17) Takeno; Public Patent Disclosure Bull No 6-92915 (Japan)
- (18) Tietze; Bioconjugate Chem 1991, V2, P148 HCAPLUS
- (19) Tietze; Chem Berg 1991, V124, P1215 HCAPLUS
- 55586-26-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(intermediate in prepn. of hydroxyanilinocyclobutenedione deriv. smooth muscle relaxant)

55586-26-0 HCAPLUS RN ·

Benzonitrile, 4-amino-3-hydroxy- (9CI) CN(CA INDEX NAME)

- ANSWER 24 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13
- 1998:543042 HCAPLUS AN
- 129:161411 DN
- Preparation of 3-alkylamino-4-anilino-3-cyclobutene-1,2-diones as smooth TIIN
- Quagliato, Dominick Anthony; Matelan, Edward Martin; Antane, Madelene
- American Home Products Corporation, USA PA
- PCT Int. Appl., 21 pp. SO CODEN: PIXXD2
- \mathtt{DT} Patent
- English LA
- ICM C07C225-20 IC ICS C07C255-59
- 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC Section cross-reference(s): 1 FAN.CNT 1

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PATENT NO.
                       KIND
                             DATE
                                            APPLICATION NO.
                                                              DATE
PI
     WO 9833763
                             19980806
                        A1
                                            WO 1998-US1466
                                                              19980127
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
             FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             GA, GN, ML, MR, NE, SN, TD, TG
     AU 9862502
                            19980825
                       A1
                                            AU 1998-62502
     ZA 9800755
                                                             19980127
                       Α
                            19990729
                                            ZA 1998-755
                                                             19980129
PRAI US 1997-792811
                       Α
                            19970130
     WO 1998-US1466
                            19980127
                       W
    MARPAT 129:161411
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$$R^{2}$$

$$\begin{array}{c}
 & 0 & 0 \\
 & N & N \\
 & N & N \\
 & R^{4} & 1
\end{array}$$

Title compds. (I; R1 = alkyl, cycloalkyl, hydroxyalkyl, fluoroalkyl, ΑB polyfluoroalkyl; 1 of R2-R4 = OH and the other 2 = H, CN, halo, alkyl, OH), were prepd. Thus, 3-ethoxy-4-(2-hydroxy-6-cyanophenyl)amino-3cyclobutene-1,2-dione (prepn. given) and tert-amylamine were stirred in CH2Cl2 to give 46% 3-(tert-amylamino)-4-(2-hydroxy-6-cyanophenyl)amino-3cyclobutene-1,2-dione. The latter inhibited contraction of rabbit bladder strips with IC50 = 0.45 .mu.M.ST

alkylaminoanilinocyclobutenedione prepn smooth muscle relaxant; cyclobutenedione amino anilino smooth muscle relaxant; irritable bowel syndrome treatment aminoanilinocyclobutenedione; incontinence treatment aminoanilinocyclobutenedione IT Bladder

(incontinence, treatment; prepn. of 3-alkylamino-4-anilino-3cyclobutene-1,2-diones as smooth muscle relaxants)

Intestine, disease IT

(irritable bowel syndrome, treatment; prepn. of 3-alkylamino-4-anilino-3-cyclobutene-1,2-diones as smooth muscle relaxants)

Muscle relaxants IT

(smooth; prepn. of 3-alkylamino-4-anilino-3-cyclobutene-1,2-diones as smooth muscle relaxants)

IT 211172-44-0P 211172-45-1P 211172-46-2P 211172-47-3P 211172-49-5P 211172-48-4P 211172-50-8P 211172-55-3P 211172-56-4P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 3-alkylamino-4-anilino-3-cyclobutene-1,2-diones as smooth muscle relaxants)

75-64-9, tert-Butylamine, reactions 594-39-8, tert-Amylamine IT

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2835-97-4, 2-Amino-3-methylphenol 5231-87-8, Diethyl squarate
     66228-31-7 142596-50-7 177476-75-4, 3-Methoxy-4-nitrobenzonitrile
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. of 3-alkylamino-4-anilino-3-cyclobutene-1,2-diones as smooth
       muscle relaxants)
    18495-15-3P 55586-26-0P
IT
                              129298-23-3P
                                             211172-51-9P
    211172-52-0P 211172-53-1P
                                  211172-54-2P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
```

(prepn. of 3-alkylamino-4-anilino-3-cyclobutene-1,2-diones as smooth muscle relaxants)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

- (1) Butera, J; US 5403853 A 1995 HCAPLUS
- (2) Butera, J; US 5506252 A 1996 HCAPLUS
- 55586-26-0P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (prepn. of 3-alkylamino-4-anilino-3-cyclobutene-1,2-diones as smooth

muscle relaxants) 55586-26-0 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

- ANSWER 25 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13
- 1998:479029 HCAPLUS AN
- 129:122458 DN
- Preparation of N,N'-diphenylurea derivatives as interleukin-8 receptor TI
- Widdowson, Katherine Louisa; Veber, Daniel Frank; Jurewicz, Anthony IN Joseph; Hertzberg, Robert Philip; Rutledge, Melvin Clarence, Jr. PA

Smithkline Beecham Corporation, USA

- U.S., 50 pp., Cont.-in-part of U.S. Ser. No. 641,990. SO
- \mathtt{DT} Patent
- LAEnglish
- ICM A61K031-47 IC

ICS A61K031-425; A61K031-38; A61K031-17

514311000 NCL

25-21 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC FAN CNT 4

T.VIA.	PATENT NO.				
DT		HIND	DATE	APPLICATION NO.	DATE
	US 5780483 US 5886044 US 6211373 US 1995-390260 US 1996-641990	A A B1 B2 A2	19980714 19990323 20010403 19950217 19960320	US 1996-701299 US 1996-641990 US 1998-111663	19960821 19960320 19980708

HARDEE 10/052967 10/1/03 Page 82

WO 1996-US2260 19960216 US 1996-701299 19960821 **A3** MARPAT 129:122458

OS GI

The title compds. [I; X = O, S; R = any functional moiety having an AB ionizable H and a pKa of .ltoreq.10 (sic); R1, Y = H, halo, NO2, cyano, (halo)alkyl, alkenyl, (halo)alkoxy, N3, HO, hydroxyalkyl, aryl, arylalkyl, aryloxy, arylalkoxy, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkoxy, arylalkenyl, heteroarylalkenyl, (un) substituted NH2, CONH2, or SO3H, etc.; m, n = 1-3], which are useful for the treatment of disease states mediated by the chemokine, interleukin-8 (IL-8) (no data), are prepd. Thus, Me 4-amino-3hydroxybenzoate was added to a soln. of Ph isocyanate in PhMe and the resulting mixt. was stirred at .apprx.80.degree. for 24-48 h to give 90% N-[2-hydroxy-4-(methoxycarbonyl)phenyl]-N'-phenylurea.

phenylurea prepn interleukin 8 receptor antagonist; psoriasis treatment STdiphenylurea prepn; atopic dermatitis treatment diphenylurea; asthma treatment diphenylurea; chronic obstructive pulmonary disease treatment diphenylurea; adult respiratory distress syndrome treatment diphenylurea; arthritis treatment diphenylurea; inflammatory bowel disease treatment diphenylurea; Crohn disease treatment diphenylurea; ulcerative colitis treatment diphenylurea; septic shock treatment diphenylurea; endotoxic shock treatment diphenylurea; gram neg sepsis treatment diphenylurea; toxic shock syndrome treatment diphenylurea; cardiac renal reperfusion injury treatment diphenylurea; glomeruli nephritis treatment diphenylurea; thrombosis treatment diphenylurea; Alzheimer disease treatment diphenylurea; graft vs host reaction treatment diphenylurea; allograft rejection treatment diphenylurea; stroke treatment diphenylurea Mental disorder IT

(Alzheimer's disease, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment) Chemokine receptors

ITChemokine receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(CXCR1, antagonists; prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

Chemokine receptors IT

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(CXCR2, antagonists; prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

Intestine, disease IT

(Crohn's, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

Transplant rejection IT

(allotransplant; prepn. of N, N'-diphenylurea derivs. as interleukin-8

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receptor antagonists for disease treatment)
   IT
        Bronchodilators
           (antiasthmatics, prepn. of N,N'-diphenylurea derivs. as interleukin-8
          receptor antagonists for disease treatment)
  IT
       Dermatitis
          (atopic, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
          antagonists for disease treatment)
  IT
       Lung, disease
          (chronic obstructive, prepn. of N,N'-diphenylurea derivs. as
          interleukin-8 receptor antagonists for disease treatment)
  IT
       Shock (circulatory collapse)
          (endotoxin, prepn. of N,N'-diphenylurea derivs. as interleukin-8
          receptor antagonists for disease treatment)
       Kidney, disease
  IT
          (glomerulonephritis, prepn. of N,N'-diphenylurea derivs. as
          interleukin-8 receptor antagonists for disease treatment)
  IT
       Transplant and Transplantation
          (graft-vs.-host reaction, prepn. of N, N'-diphenylurea derivs. as
         interleukin-8 receptor antagonists for disease treatment)
 IT
      Septicemia
          (gram-neg.; prepn. of N,N'-diphenylurea derivs. as interleukin-8
         receptor antagonists for disease treatment)
 IT
      Heart, disease
      Kidney, disease
         (injury, reperfusion; prepn. of N,N'-diphenylurea derivs. as
         interleukin-8 receptor antagonists for disease treatment)
 IT
      Respiratory distress syndrome
         (newborn; adult, prepn. of N, N'-diphenylurea derivs. as interleukin-8
         receptor antagonists for disease treatment)
      Anti-inflammatory agents
 IT
     Anticoagulants
      Psoriasis
         (prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
        antagonists for disease treatment)
 IT
     Brain, disease
         (stroke, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
        antagonists for disease treatment)
     Interleukin 8 receptors
IT
     Interleukin 8 receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (.alpha., antagonists; prepn. of N,N'-diphenylurea derivs. as
        interleukin-8 receptor antagonists for disease treatment)
IT
     Interleukin 8 receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (.beta., antagonists; prepn. of N,N'-diphenylurea derivs. as
       interleukin-8 receptor antagonists for disease treatment)
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 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
    (prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
    antagonists for disease treatment)
 86-84-0, 1-Naphthyl isocyanate 87-17-2, 2-Phenylaminocarbonylphenol
 88-67-5, 2-Iodobenzoic acid 90-43-7, 2-Phenylphenol
 o-Phenylenediamine, reactions 95-55-6, 2-Aminophenol 98-09-9,
                                                                   95-54-5,
 Phenylsulfonyl chloride
                           98-17-9, .alpha.,.alpha.,.alpha.-Trifluoro-m-
 cresol 99-56-9, 4-Nitro-1,2-phenylenediamine
5-Nitro-2-hydroxyaniline 100-46-9, Benzylamine, reactions
 Phenyl isocyanate, reactions
                                                               103-71-9,
                               106-40-1, 4-Bromoaniline
117-77-1, 2-Hydroxy-3-aminoanthraquinone 117-99-7 121-51-7,
                                                           116-63-2
3-Nitrobenzenesulfonyl chloride 121-60-8, 4-Acetamidophenylsulfonyl
           121-88-0, 2-Amino-5-nitrophenol 124-38-9, Carbon dioxide,
reactions 137-07-5, 2-Aminothiophenol 274-09-9, 1,3-Benzodioxole
           329-01-1, 3-Trifluoromethylphenyl isocyanate
2-Nitro-3-fluorophenol 394-31-0, 2-Amino-5-hydroxybenzoic acid
                                                          385-01-3,
394-33-2, 4-Fluoro-2-nitrophenol 400-98-6, 4-Amino-3-
nitrobenzotrifluoride 444-30-4, 2-Trifluoromethylphenol
5-Fluoro-2-nitrophenol 463-71-8, Thiophosgene
2-Hydroxy-3-aminobenzoic acid 544-92-3, Copper(I) cyanide
2-Anilinoaliline 576-24-9, 2,3-Dichlorophenol 580-51-8, 3-Phenylphenol
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603-87-2, 2-Hydroxy-3-nitroaniline 609-89-2, 4,6-Dichloro-2-nitrophenol
   611-20-1, 2-Cyanophenol 614-68-6, 2-Methylphenyl isocyanate
   2-Bromoaniline 618-45-1, 3-Isopropylphenol 620-17-7, 3-Ethylphenol
                                                                 615-36-1,
   644-35-9, 2-Propylphenol 700-87-8, 2-Methoxyphenyl isocyanate
   776-04-5, 2-(Trifluoromethyl)benzenesulfonyl chloride
   2-Nitro-4-(trifluoromethyl)benzenesulfonyl chloride 873-62-1,
   3-Cyanophenol 1548-13-6, 4-Trifluoromethylphenyl isocyanate
   2-Bromophenyl isocyanate 1623-92-3, 4-Phenoxyphenylsulfonyl chloride
                                                                 1592-00-3,
              1899-93-0, 3-Methylbenzenesulfonyl chloride
   Benzylsulfonyl chloride 2237-30-1, 3-Cyanoaniline
                                                           1939-99-7,
   2-Phenoxybenzoic acid 2285-12-3, 2-Trifluoromethylphenyl isocyanate
   2374-03-0, 3-Hydroxy-4-aminobenzoic acid 2493-02-9, 4-Bromophenyl
   isocyanate 2612-57-9, 2,4-Dichlorophenyl isocyanate
   1-Amino-2-hydroxynaphthalene 2835-98-5, 2-Hydroxy-4-methylaniline
   3272-08-0, 2-Nitro-4-cyanophenol 3320-83-0, 2-Chlorophenyl isocyanate
  3320-86-3, 2-Nitrophenyl isocyanate 3470-49-3, 5-Hydroxy-1-indanone
  4091-26-3, Styrylsulfonyl chloride 5395-71-1, 2-Ethoxyphenyl isocyanate
  5417-63-0, 3-Amino-2-hydroxynaphthalene 6344-59-8, 1-Hydroxy-2-
  nitrofluorene 7664-41-7, Ammonia, reactions
  3-Hydroxybenzophenone 13360-57-1, Dimethylsulfamoyl chloride
  14755-02-3 16629-19-9, 2-Thiophenesulfonyl chloride
  2-Fluorophenyl isocyanate 17337-13-2, 2-Phenylphenyl isocyanate
  17573-92-1, 3-Methoxythiophene 17802-02-7, 3-Chloro-2-nitrophenol
  18162-48-6, Tert-Butyldimethylsilyl chloride 18493-15-7
  8-Quinolinesulfonyl chloride 18908-07-1, 3-Methoxyphenyl isocyanate
              21286-54-4, (+)-10-Camphorsulfonyl chloride 23095-31-0,
  3,4-Dimethoxyphenylsulfonyl chloride 24615-22-3 26386-88-9,
 Diphenylphosphoryl azide 26628-22-8, Sodium azide
  Triphosgene
                                                      32315-10-9,
               35821-29-5
                           39234-86-1 39262-22-1, (-)-10-Camphorsulfonyl
  chloride
            40398-01-4, 2-Chloro-6-methylphenyl isocyanate
 2-Ethylphenyl isocyanate
                           41195-90-8, 2,3-Dichlorophenyl isocyanate
 43115-40-8, 2-Amino-4-(ethylsulfonyl)phenol 52260-30-7,
 2-Methylthiophenyl isocyanate 55076-90-9, 2,4-Dibromophenyl isocyanate
 63435-16-5, Methyl 4-amino-3-hydroxybenzoate 65295-69-4,
 2,6-Difluorophenyl isocyanate 69812-29-9, 2-Acetamido-4-methyl-5-
 thiazolesulfonyl chloride 82419-26-9, 2,3-Difluoro-6-nitrophenol
 93254-81-0, 2-Benzyloxybenzophenone 99968-81-7, 3-Iodo-2-hydroxyaniline
 126714-85-0, 2,3-Dichlorothiophene-5-sulfonyl chloride 146224-62-6,
 5-Aminocarbonyl-2-aminophenol
                                182500-26-1, 2-Trifluoromethoxyphenyl
 isocyanate
             182500-27-2, 2-Amino-5,6-diphenylphenol
 2-Nitro-5-methyl-4-bromophenol
                                                      182500-28-3,
                                 182500-29-4 182500-30-7,
 3,5,6-Trifluoro-2-hydroxyaniline
                                   182500-31-8, 4-Trifluoromethyl-3-fluoro-
 2-hydroxyaniline 183513-64-6
RL: RCT (Reactant); RACT (Reactant or reagent)
    (prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
   antagonists for disease treatment)
386-72-1P, 2-Nitro-3-trifluoromethylphenol
2-Amino-4-fluorophenol 400-99-7P, 2-Nitro-4-trifluoromethylphenol
454-81-9P, 2-Amino-4-trifluoromethylphenol
                                            527-62-8P,
2-Amino-4,6-dichlorophenol
                            1214-44-4P, 2-Amino-6-
(phenylaminocarbonyl)phenol 4291-30-9P, 2-Nitro-6-phenylphenol
4363-03-5P, 2-Amino-5-phenylphenol 5768-39-8P, 2,3-Methylenedioxybenzoic
       6236-69-7P 7256-03-3P, 2-Amino-1-hydroxyfluorene 14543-43-2P,
2-Amino-4-cyanophenol
                       15864-32-1P 18062-89-0P, 2-Nitro-5-phenylphenol
18495-15-3P, 2-Nitro-5-cyanophenol 28165-60-8P, 2-Nitro-5,6-
                28177-79-9P, 2-Nitro-6-cyanophenol
4-Amino-3-hydroxybenzophenone 43200-31-3P, 2-(Phenylsulfamido)aniline
43200-46-0P 53442-24-3P, 2-Amino-6-phenylphenol
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2-Amino-3-fluorophenol
                                 53981-24-1P, 2-Amino-5-fluorophenol
        55586-26-0P, 2-Amino-5-cyanophenol
                                            56962-00-6P,
        2-Amino-3-chlorophenol
                                 60166-83-8P, 3-Methoxy-2-thiophenecarboxylic acid
        63450-94-2P
                      67608-57-5P, 2-Amino-6-cyanophenol
                                                          68507-91-5P,
        2-Nitro-6-(phenylaminocarbonyl)phenol
                                               86981-08-0P
        3-(Phenylsulfamido)benzonitrile 87376-34-9P
                                                              87186-71-8P,
                                                       92554-96-6P,
        2-(8-Quinolinylsulfonylamino)aniline
                                              101664-28-2P, 2-Nitro-6-ethylphenol
        106877-48-9P, 2-Amino-3-trifluoromethylphenol
                                                       115023-64-8P,
        2-Nitro-6-propylphenol
                                115023-65-9P, 2-Amino-6-propylphenol
        115551-33-2P, 2-Hydroxy-3,4-difluoroaniline
       2-Amino-5,6-dichlorophenol
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                                    139729-85-4P, 2-Amino-5-isopropylphenol
       153506-06-0P, 2-Nitro-5-isopropylphenol
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       2-Tert-Butyldimethylsilyloxy-5-nitrophenol
                                                    182499-76-9P
       182499-79-2P
                      182499-80-5P, Bis (3-bromo-6-aminophenyl) disulfide
                                                                   182499-78-1P
       182499-81-6P, 4-Nitro-3-(phenylsulfamido)benzonitrile
       4-Amino-3-(phenylsulfamido)benzonitrile
                                                               182499-82-7P,
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       2-(Styrylsulfamido)aniline 182499-84-9P
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       2-(2-Thiophenesulfamido)aniline
                                         182499-86-1P, 2-(3-
       Tolylsulfonylamino)aniline 182499-87-2P, 2-(Benzylsulfonylamino)aniline
                      182499-89-4P, 2-Amino-6-fluoro-4-bromophenol
       182499-90-7P, 2-Amino-6-ethylphenol 182499-91-8P, 2-Nitro-5-methyl-6-
                    182499-92-9P, 2-Nitro-5-methyl-6-cyanophenol
       2-Amino-5-methyl-6-cyanophenol
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       hydroxybenzophenone
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      182499-96-3P, 3-Amino-2-hydroxybenzophenone
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      2-Nitro-6-benzyloxyphenol
                                  182499-98-5P, 2-Amino-6-benzyloxyphenol
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         (prepn. of N, N'-diphenylurea derivs. as interleukin-8 receptor
         antagonists for disease treatment)
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- 55586-26-0P, 2-Amino-5-cyanophenol

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

- 55586-26-0 HCAPLUS RN
- Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

- L13 ANSWER 26 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN
- 1998:244370 HCAPLUS AN
- DN129:25291
- Chemical degradation of melanins: application to identification of TIΑU
- Ito, Shosuke; Wakamatsu, Kazumasa
- Fujita Health University School of Health Sciences, Aichi, 470-1192, Japan CS SO
- Pigment Cell Research (1998), 11(2), 120-126 CODEN: PCREEA; ISSN: 0893-5785
- Munksgaard International Publishers Ltd. PΒ DT
- Journal
- LA English
- 9-15 (Biochemical Methods)
- Melanocytes produce two chem. distinct types of melanin pigments, eumelanins and pheomelanins. These pigments can be quant. analyzed by acidic KMnO4 oxidn. or reductive hydrolysis with hydriodic acid (HI) to form pyrrole-2,3,5-tricarboxylic acid (PTCA) or aminohydroxyphenylalanine (AHP), resp. Dark brown melanin-like pigments are also widespread in nature, for example, in the substantia nigra of humans and primates (neuromelanin), in butterfly wings and in the fungus Cryptococcus neoformans. To characterize such diverse types of melanins, we have improved the alk. H2O2 oxidn. method of Napolitano et al. and re-examd. the HI hydrolysis method developed by Wakamatsu et al. The results obtained with H2O2 oxidn. show that (1) pyrrole-2,3-dicarboxylic acid (PDCA), a specific marker of 5,6-dihydroxyindole units in melanins, is produced in yields ten times higher than by acidic KMnO4 oxidn., and (2) PTCA is artificially produced from pheomelanins. The results with HI hydrolysis show that dopamine-melanin produces a 1:1 mixt. of 3-amino and 4-amino isomers of aminohydroxyphenyl-ethylamine, while the isomer ratio is about 0.2 in melanins prepd. from dopamine and cysteine. These results indicate that alk. H2O2 oxidn. is useful in characterizing synthetic and natural eumelanins and that reductive hydrolysis with HI can be applied to

analyzing oxidn. products of dopamine such as neuromelanin. melanin dopamine identification alk peroxide oxidn ST Melanins IT RL: ANT (Analyte); ANST (Analytical study) (eu-; identification of dopamine-melanin by chem. degrdn. using alk. or acidic oxidn. with spectroscopic characterization) Melanins IT Pheomelanins RL: ANT (Analyte); ANST (Analytical study) (identification of dopamine-melanin by chem. degrdn. using alk. or acidic oxidn. with spectroscopic characterization) Melanins IT RL: ANT (Analyte); ANST (Analytical study) (neuromelanins; identification of dopamine-melanin by chem. degrdn. using alk. or acidic oxidn. with spectroscopic characterization) 51-61-6D, Dopamine, synthetic melanin, analysis IT 52-90-4D, Cysteine, synthetic melanin, analysis 59-92-7D, DOPA, synthetic melanin, analysis 945-32-4, 1H-Pyrrole-2,3,5-tricarboxylic acid 1125-32-2, 1H-Pyrrole-2,3-dicarboxylic acid 19641-92-0D, Cysteinyldopa, synthetic melanin 74923-08-3 104083-77-4 RL: ANT (Analyte); ANST (Analytical study) (identification of dopamine-melanin by chem. degrdn. using alk. or acidic oxidn. with spectroscopic characterization) RE.CNT THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD RE (1) Carstam, R; Biochim Biophys Acta 1991, V1097, P152 HCAPLUS (2) Ito, S; Anal Biochem 1985, V144, P527 HCAPLUS (3) Ito, S; Anal Biochem 1993, V215, P273 HCAPLUS (4) Ito, S; Biochim Biophys Acta 1986, V883, P155 HCAPLUS (5) Ito, S; Biochim Biophys Acta 1989, V964, P1 (6) Ito, S; J Invest Dermatol 1993, V100, P166S HCAPLUS (7) Ito, S; Pigment Cell Res 1989, V2, P53 HCAPLUS (8) Ito, S; Pigment Cell Res 1994, V7, P141 HCAPLUS (9) Ito, S; Pigmentation and pigmentary disorders 1993, P33 (10) Jimbow, K; J Invest Dermatol 1981, V77, P213 HCAPLUS (11) Koch, P; Insect Biochem Molec Biol 1995, V25, P73 HCAPLUS (12) Koch, P; Naturwissenschaften 1994, V81, P36 HCAPLUS (13) Lin, J; J Electroanal Chem 1994, V375, P219 (14) Napolitano, A; Tetrahedron 1995, V51, P5913 HCAPLUS (15) Napolitano, A; Tetrahedron 1996, V52, P8775 HCAPLUS (16) Nosanchuk, J; Infect Immun 1997, V65, P1836 HCAPLUS (17) Odh, G; J Neurochem 1994, V652, P2030 (18) Offen, D; Neurochem Int 1997, V31, P207 HCAPLUS (19) Ozeki, H; Anal Biochem 1997, V248, P149 HCAPLUS (20) Ozeki, H; J Invest Dermatol 1995, V105, P361 HCAPLUS (21) Ozeki, H; Pigment Cell Res 1996, V9, P265 HCAPLUS (22) Piatteli, M; Tetrahedron 1962, V18, P941 (23) Prota, G; J Invest Dermatol 1980, V75, P122 HCAPLUS (24) Prota, G; Melanins and melanogenesis 1992 (25) Prota, G; Pigment Cell Res 1995, V8, P153 HCAPLUS (26) Swan, G; Fortschritte der Chemie Organischer Naturstoffe 1974, V31, P522 (27) Thody, A; J Invest Dermatol 1991, V97, P340 HCAPLUS (28) Wakamatsu, K; Neurosci Lett 1991, V131, P57 HCAPLUS (29) Wang, Y; Infect Immun 1995, V63, P3131 HCAPLUS (30) Williamson, P; Frontiers Biosci 1997, V2, PE99 HCAPLUS

104083-77-4

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RL: ANT (Analyte); ANST (Analytical study) (identification of dopamine-melanin by chem. degrdn. using alk. or acidic oxidn. with spectroscopic characterization) 104083-77-4 HCAPLUS

Phenol, 2-amino-5-(2-aminoethyl)- (9CI) (CA INDEX NAME) CN

$$CH_2-CH_2-NH_2$$
OH

ANSWER 27 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13AN

1998:124008 HCAPLUS

128:180230 DN

RN

Preparation of cyanoguanidines as interleukin-8 (IL-8) receptor \mathtt{TI} IN

Bryan, Deborah Lynn; Gleason, John Gerald; Widdowson, Katherine L.

Smithkline Beecham Corporation, USA; Bryan, Deborah Lynn; Gleason, John PA Gerald; Widdowson, Katherine L.

PCT Int. Appl., 58 pp. SO

CODEN: PIXXD2

Patent \mathtt{DT}

LA English

ICM A61K031-44 IC

ICS A61K031-495; A61K031-505; A61K031-535; C07D211-56; C07D213-84; C07D213-86; C07D213-88; C07D251-32; C07D401-12; C07D413-12;

25-21 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC Section cross-reference(s): 1 FAN.CNT 1

•	PATENT NO.	KIND DATE	APPLICATION NO. DATE
PI	W: AL, AM, KG, KP, SG, SI, RU, TJ, RW: GH, KE, GB, GR, GN, ML, ZA 9707301 AU 9740750 AU 723816 EP 929302 R: AT, BE, IE, FI BR 9711140 CN 1232398 JP 2000516619 TW 461878 US 6204294	A1 19980219 AU, BB, BG, BR, CA, KR, LK, LR, LT, LV, SK, TR, TT, UA, US, TM LS, MW, SD, SZ, UG, IE, IT, LU, MC, NL, MR, NE, SN, TD, TG A 19980216 A1 19980306 B2 20000907 A1 19990721 CH, DE, DK, ES, FR, A 19990817 A 19991020 T2 20001212 B 20011101 B1 20010320 A 19990412	WO 1997-US14581 19970815 CN, CZ, EE, GE, GH, HU, IL, IS, JP, MD, MG, MK, MN, MX, NO, NZ, PL, RO, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, ZW, AT, BE, CH, DE, DK, ES, FI, FR, PT, SE, BF, BJ, CF, CG, CI, CM, GA, AU 1997-40750 19970815 EP 1997-938425 19970815 GB, GR, IT, LI, LU, NL, SE, MC, PT, BR 1997-198603 19970815 CN 1997-198603 19970815 JP 1998-510106 19970815 TW 1997-86111871 19971003 US 1999-230977 19990204 NO 1999-668 19990212
			NO 2001-6067 20011212

HARDEE 10/052967 10/1/03 Page 91

PRAI US 1996-23414P 19960815 WO 1997-US14581 19970815 W OS MARPAT 128:180230

GI

The title compds. [I; Z = CN, OR11, C(O)R11, etc.; V = 0-4; R11 = H, C1-4 AΒ alkyl, aryl, etc.; R13, R14 = H, C1-4 alkyl, aryl; W = II, III, IV(wherein E = (un) substituted benzo, cyclopenta, etc.; R = any functional moiety having an ionizable hydrogen and a pKa of 10 or less; R1 = H, halo, NO2, etc.; m = 1-3); W1 = V, VI (Y = H, halo, NO2, etc.; n = 1-3)], useful in the treatment of disease states mediated by the chemokine, interleukin-8 (IL-8), were prepd. Thus, reaction of 2-chlorophenyl isothiocyanate with cyanamide in the presence of NaOEt in EtOH followed by reacting the resulting sodium salt of N-(2-chlorophenyl)-N''-cyanothiourea with 2-hydroxy-4-nitroaniline in the presence of EDC.HCl in DMF afforded the title compd. VII which showed IC50 of 5-100 nM against IL-8 receptor ST

cyanoguanidine prepn interleukin receptor antagonist IT

Interleukin 8 receptors

RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL

(prepn. of cyanoguanidines as interleukin-8 (IL-8) receptor antagonists)

 ${ t IT}$ 203201-25-6P 203201-26-7P 203201-27-8P 203201-30-3P 203201-28-9P 203201-31-4P 203201-29-0P 203201-32-5P 203201-35-8P 203201-33-6P 203201-34-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of cyanoguanidines as interleukin-8 (IL-8) receptor antagonists)

IT100-39-0, Benzyl bromide 103-72-0, Phenyl isothiocyanate 106-95-6,

Allyl bromide, reactions 121-88-0, 2-Hydroxy-4-nitroaniline 2,6-Dihydroxybenzoic acid 1458-98-6, 3-Bromo-2-methyl-1-propene 303-07-1, 2740-81-0, 2-Chlorophenylisothiocyanate 6590-97-2, 2,3-Dichlorophenyl isothiocyanate 13037-60-0, 2-Bromophenyl isothiocyanate 18495-15-3 203201-48-3 203201-49-4 RL: RCT (Reactant); RACT (Reactant or reagent) (prepn. of cyanoguanidines as interleukin-8 (IL-8) receptor antagonists) 2150-45-0P IT 74292-74-3P 203190-56-1P 203190-57-2P 203190-60-7P 203201-36-9P 203190-59-4P 203201-37-0P 203201-38-1P 203201-40-5P 203201-41-6P 203201-42-7P 203201-39-2P 203201-43-8P 203201-44-9P 203201-45-0P 203201-46-1P 203201-47-2P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (prepn. of cyanoguanidines as interleukin-8 (IL-8) receptor antagonists) RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD RE (1) Atwal; US 5401758 A 1995 HCAPLUS (2) Humphrey; US 5567722 A 1996 HCAPLUS (3) Manley, P; J Med Chem 1992, V35(12), P2327 HCAPLUS (4) Takemoto; US 5371086 A 1994 HCAPLUS 203201-41-6P 203201-42-7P 203201-47-2P ITRL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

- (prepn. of cyanoguanidines as interleukin-8 (IL-8) receptor antagonists) 203201-41-6 HCAPLUS RNCN
- Benzonitrile, 4-amino-3-hydroxy-2-(2-propenyl)- (9CI) (CA INDEX NAME)

$$CH_2-CH=CH_2$$
OH
 NH_2

203201-42-7 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy-2-propyl- (9CI) (CA INDEX NAME) CN

203201-47-2 HCAPLUS RN

Benzoic acid, 3-amino-6-cyano-2-hydroxy-, methyl ester (9CI) (CA INDEX CN

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ANSWER 28 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN
  L13
       1998:42247 HCAPLUS
  ΑN
       128:110869
  DN
       Phenyl urea interleukin-8 receptor antagonists for treatment of
  TI
       interleukin-8-mediated diseases, and preparation thereof
  IN
       Widdowson, Katherine L.
       Smithkline Beecham Corp., USA; Widdowson, Katherine L.
  PA
       PCT Int. Appl., 54 pp.
  SO
       CODEN: PIXXD2
       Patent
  DT
  LA
       English
  IC
      ICM A01N037-34
      ICS A01N047-28; C07C255-00; C07C335-00; C07C273-00
 CC
      1-7 (Pharmacology)
      Section cross-reference(s): 25, 63
 FAN.CNT 1
      PATENT NO.
                        KIND
                              DATE
                                             APPLICATION NO.
 ΡĮ
      WO 9749286
                             19971231
                        A1
                                             WO 1997-US10900
              AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, GE, GH, HU, IL, IS, JP,
                                                              19970624
              KG, KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO,
              SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD,
          RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
              GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
             GN, ML, MR, NE, SN, TD, TG
     AU 9734994
                             19980114
                        A1
                                            AU 1997-34994
     EP 915651
                                                              19970624
                             19990519
                        A1
                                            EP 1997-931342
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
     BR 9709938
                             19990810
                       Α
                                            BR 1997-9938
     JP 2000514789
                                                             19970624
                       T2
                            20001107
                                            JP 1998-503446
     ZA 9705671
                                                             19970624
                            19971229
                       A
                                            ZA 1997-5671
                                                             19970626
     US 6271261
                            20010807
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                                            US 1998-202570
     NO 9806109
                                                             19981217
                            19990224
                       Α
                                            NO 1998-6109
     KR 2000022273
                                                             19981223
                            20000425
                       Α
                                            KR 1998-710693
PRAI US 1996-20655P
                                                             19981226
                            19960627
                       P
     WO 1997-US10900
                            19970624
    MARPAT 128:110869
OS
GI
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$$\begin{array}{c|c}
R \\
X \\
II \\
NH-C-NH-(CR13R14)V
\end{array}$$
(Y) n

Ι

Ph ureas I [X = 0,S; R = functional moiety with ionizable H and pKa of 10 AB or less; R1 = H, halo, nitro, cyano, C1-10 alkyl, etc.; m, n = 1-3; Y = H, halo, nitro, etc.; R13, R14 = H, (substituted) C1-4 alkyl, one of R13 and R14 may be (substituted) aryl; v = 1-4] are used in the treatment of disease states mediated by the chemokine, Interleukin-8. Prepn. of e.g. N-(2-hydroxy-4-nitrophenyl)-N'-(benzyl)urea is described. ST

phenyl urea deriv prepn IL8 disease; receptor interleukin 8 antagonist

Chemokine receptors IT

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(CXCR1; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof)

ITChemokine receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(CXCR2; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof)

ITIntestine, disease

(Crohn's; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof)

ITSepsis

> (Gram.-neg.; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Interleukin 1.beta.

IT

RL: BSU (Biological study, unclassified); BIOL (Biological study) (IL-1.beta. mRNA in traumatic brain injury)

Anti-Alzheimer's agents IT

Antiarthritics

Antiasthmatics

Anticoagulants

Drug delivery systems

Psoriasis

(Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof)

ITChemokines

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof)

ITmRNA

RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC

(TNF-.alpha. mRNA in traumatic brain injury)

Tumor necrosis factors IT

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(TNF-.alpha. mRNA in traumatic brain injury) Respiratory distress syndrome IT (adult; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) ITTransplant rejection Transplant rejection (allotransplant; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) IT Dermatitis (atopic; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Lung, disease IT (chronic obstructive; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) ΙT Drugs (for chemokine-mediated diseases; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Kidney, disease IT (glomerulonephritis; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Transplant and Transplantation IT (graft-vs.-host reaction; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) IT Brain (hippocampus; TNF-.alpha. mRNA in traumatic brain injury) IT Intestine, disease (inflammatory; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Reperfusion IT(injury, cardiac and renal; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) IT Brain (parietal cortex; TNF-.alpha. mRNA in traumatic brain injury) IT Heart, disease Kidney, disease (reperfusion injury; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Shock (circulatory collapse) (septic; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Brain, disease IT(stroke; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) IT Shock (circulatory collapse) (toxic shock syndrome; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Intestine, disease IT (ulcerative colitis; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) Interleukin 8 receptors IT RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (.alpha.; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof)

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

(Biological study); PROC (Process)

Interleukin 8 receptors

IT

(.beta.; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) 118362-72-4P IT 201466-89-9P 201466-90-2P 201466-93-5P 201466-91-3P 201466-94-6P 201466-92-4P 201466-95-7P 201466-96-8P 201466-98-0P 201466-97-9P 201466-99-1P 201467-00-7P 201467-01-8P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) 28165-60-8P, 2-Nitro-5,6-dichlorophenol IT2-Nitro-6-cyanophenol 51586-24-4P, .alpha.-(Trifluoromethyl)benzylamine 55204-93-8P, 2-Chlorobenzyl isocyanate 65874-91-1P 2-Amino-6-cyanophenol 72534-45-3P 67608-57-5P, 87186-71-8P, 3-(Phenylsulfamido)benzonitrile 89999-90-6P 2-Amino-5,6-dichlorophenol 116278-69-4P, 182499-81-6P 182499-82-7P 185424-21-9P 201467-03-0P 201467-04-1P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (prepn. and reaction; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) 89-97-4, 2-Chlorobenzylamine 91-00-9, Aminodiphenylmethane IT 2-Amino-4-nitrophenol 121-88-0, 2-Hydroxy-4-nitroaniline 99-57-0, Methanesulfonyl chloride 124-63-0, 340-05-6, .alpha.-(Trifluoromethyl)benzyl alcohol 576-24-9, 2,3-Dichlorophenol 603-87-2, 2-Amino-6-nitrophenol 611-20-1, 2-Cyanophenol 1548-62-5, 2-Trifluoromethyl-6-nitrophenol 1943-82-4, Phenethyl isocyanate 2237-30-1, 3-Cyanoaniline Benzyl isocyanate 3173-56-6, 14649-03-7 33375-06-3 **55586-26-0** 182499-74-7 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) IT55586-26-0 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction; Ph urea interleukin-8 receptor antagonists for treatment of interleukin-8-mediated diseases, and prepn. thereof) 55586-26-0 HCAPLUS RNBenzonitrile, 4-amino-3-hydroxy- (9CI) CN (CA INDEX NAME)

- ANSWER 29 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13 AN
- 1996:643902 HCAPLUS
- 125:275430 DN
- Preparation of N,N'-diphenylurea derivatives as interleukin-8 receptor TIIN
- Widdowson, Katherine Louisa; Veber, Daniel Frank; Jurewicz, Anthony Joseph; Rutledge, Melvin Clarence, Jr.; Hertzberg, Robert Philip Smithkline Beecham Corporation, USA PA
- SO PCT Int. Appl., 116 pp.

CODEN: PIXXD2 Patent DTLA English IC ICM A61K031-17 25-21 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) CC Section cross-reference(s): 1 FAN. CNT 4 PATENT NO. KIND DATE APPLICATION NO. DATE WO 9625157 PI19960822 A1 WO 1996-US2260 19960216 JP, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE EP 809492 EP 1996-906547 BE, CH, DE, DK, FR, GB, IT, LI, NL 19960216 JP 11503110 T219990323 JP 1996-525199 WO 9729743 19960216 A1 19970821 WO 1996-US13632 AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, AU 9669007 19970902 **A**1 AU 1996-69007 AU 725456 19960821 B2 20001012 EP 896531 19990217 **A**1 EP 1996-929723 R: AT, ES, GR, LU, SE, MC, PT, IE, SI, LT, LV, FI 19960821 CN 1215990 19990505 Α CN 1996-180245 JP 2000504722 19960821 T2 20000418 JP 1997-529318 NZ 316710 19960821 20000526 Α NZ 1996-316710 BR 9612779 19960821 Α 20001024 BR 1996-12779 US 6005008 19960821 19991221 Α US 1997-894291 US 6211373 19970815 B1 20010403 US 1998-111663 NO 9803737 19980708 19981014 A NO 1998-3737 US 6180675 19980814 B1 20010130 US 1999-240354 PRAI US 1995-390260 19990129 A2 19950217 WO 1996-US2260 19960216 W US 1996-641990 А3 19960320 US 1996-701299 **A**3 19960821 WO 1996-US13632 W 19960821 MARPAT 125:275430 OS GI

The title compds. [I; X = 0, S; R = any functional moiety having an ionizable H and a pKa of .ltoreq.10; R1, Y = H, halo, NO2, cyano, C1-10 (halo)alkyl, C2-10 alkenyl, C1-10 (halo)alkoxy, N3, H0, C1-4 hydroxyalkyl, aryl, aryl-C1-4 alkyl, aryloxy, aryl-C1-4 alkoxy, heteroaryl, heteroarylalkyl, heterocyclyl, heterocyclyl-C1-4 alkyl, heterocyclyl-C1-4 alkoxy, aryl-C2-10 alkenyl, heteroaryl-C2-10 alkenyl, (un)substituted NH2, carbamoyl, or SO3H, etc.; m, n = 1-3], which are useful for the treatment

of disease states mediated by the chemokine, interleukin-8 (IL-8) (no data), are prepd. The chemokine-mediated disease is selected from psoriasis or atopic dermatitis, asthma, chronic obstructive pulmonary disease, adult respiratory distress syndrome, arthritis, inflammatory bowel disease, Crohn's disease, ulcerative colitis, septic shock, endotoxic shock, gram neg. sepsis, toxic shock syndrome, stroke, cardiac and renal reperfusion injury, glomerulo-nephritis, thrombosis, Alzheimer's disease, graft vs. host reaction, and allograft rejections. Thus, 1.19 mmol Me 4-amino-3-hydroxybenzoate was added to a soln. of 1.19 mmol Ph isocyanate in toluene and the resulting mixt. was stirred at .apprx.80.degree. for 24-48 h to give 90% N-[2-hydroxy-4-(methoxycarbonyl)phenyl]-N'-phenylurea.

phenylurea prepn interleukin 8 receptor antagonist; psoriasis treatment ST diphenylurea; atopic dermatitis treatment diphenylurea; asthma treatment diphenylurea; chronic obstructive pulmonary disease treatment diphenylurea; adult respiratory distress syndrome treatment diphenylurea; arthritis treatment diphenylurea; inflammatory bowel disease treatment diphenylurea; Crohn disease treatment diphenylurea; ulcerative colitis treatment diphenylurea; septic shock treatment diphenylurea; endotoxic shock treatment diphenylurea; gram neg sepsis treatment diphenylurea; toxic shock syndrome treatment diphenylurea; cardiac renal reperfusion injury treatment diphenylurea; glomerulo nephritis treatment diphenylurea; thrombosis treatment diphenylurea; Alzheimer disease treatment diphenylurea; graft vs host reaction treatment diphenylurea; allograft rejection treatment diphenylurea; stroke treatment diphenylurea Sepsis and Septicemia IT

(gram-neg.; prepn. of N, N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

IT Anticoagulants and Antithrombotics Psoriasis

> (prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

Inflammation inhibitors IT

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

Mental disorder IT

(Alzheimer's disease, prepn. of N, N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

Intestine, disease IT

(Crohn's, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

Respiratory distress syndrome IT

(adult, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment) Transplant and Transplantation

IT

(allo-, rejection; prepn. of N, N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

Inflammation inhibitors IT

(antiarthritics, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

IT Bronchodilators

(antiasthmatics, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

ITDermatitis

(atopic, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor antagonists for disease treatment)

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IT
        Lung, disease
           (chronic obstructive, prepn. of N,N'-diphenylurea derivs. as
           interleukin-8 receptor antagonists for disease treatment)
   ΙT
        Shock
           (endotoxin, prepn. of N,N'-diphenylurea derivs. as interleukin-8
          receptor antagonists for disease treatment)
  IT
       Kidney, disease
          (glomerulonephritis, prepn. of N,N'-diphenylurea derivs. as
          interleukin-8 receptor antagonists for disease treatment)
       Transplant and Transplantation
  IT
          (graft-vs.-host reaction, prepn. of N,N'-diphenylurea derivs. as
          interleukin-8 receptor antagonists for disease treatment)
       Intestine, disease
  IT
          (inflammatory, prepn. of N,N'-diphenylurea derivs. as interleukin-8
          receptor antagonists for disease treatment)
  IT
       Heart, disease
       Kidney, disease
          (injury, reperfusion; prepn. of N,N'-diphenylurea derivs. as
         interleukin-8 receptor antagonists for disease treatment)
      Lymphokine and cytokine receptors
  IT
      RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
       (Biological study); PROC (Process)
         (interleukin 8 .alpha., antagonists; prepn. of N,N'-diphenylurea
         derivs. as interleukin-8 receptor antagonists for disease treatment)
      Lymphokine and cytokine receptors
 IT
      RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
      (Biological study); PROC (Process)
         (interleukin 8 .beta., antagonists; prepn. of N,N'-diphenylurea derivs.
         as interleukin-8 receptor antagonists for disease treatment)
 IT
      Receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
      (Biological study); PROC (Process)
         (interleukin 8, .alpha., antagonists; prepn. of N,N'-diphenylurea
        derivs. as interleukin-8 receptor antagonists for disease treatment)
{\tt TT}
     Receptors
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (interleukin 8, .beta., antagonists; prepn. of N,N'-diphenylurea
        derivs. as interleukin-8 receptor antagonists for disease treatment)
{	t IT}
     Shock
        (septic, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
        antagonists for disease treatment)
IT
     Brain, disease
        (stroke, prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
        antagonists for disease treatment)
IT
    Shock
       (toxic shock syndrome, prepn. of N,N'-diphenylurea derivs. as
       interleukin-8 receptor antagonists for disease treatment)
IT
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                   182499-71-4P
                                  182499-72-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
       antagonists for disease treatment)
    86-84-0, 1-Naphthyl isocyanate 87-17-2, 2-Phenylaminocarbonylphenol
IT
    88-67-5, 2-Iodobenzoic acid
                                 90-43-7, 2-Phenylphenol
    o-Phenylenediamine, reactions
                                                           91-93-0
                                                                     95-54-5,
                                   95-55-6, 2-Aminophenol
    Phenylsulfonyl chloride
                                                            98-09-9,
                             98-17-9, .alpha.,.alpha.-Trifluoro-m-
    cresol
             99-56-9, 4-Nitro-1,2-phenylenediamine
    5-Nitro-2-hydroxyaniline 100-46-9, Benzylamine, reactions
    Phenyl isocyanate, reactions
                                                                 103-71-9,
                                  106-40-1, 4-Bromoaniline
    117-77-1, 2-Hydroxy-3-aminoanthraquinone
                                                             116-63-2
                                              117-99-7
    3-Nitrobenzenesulfonyl chloride 121-60-8, 4-Acetamidophenylsulfonyl
              121-88-0, 2-Amino-5-nitrophenol 124-38-9, Carbon dioxide,
    reactions
             137-07-5, 2-Aminothiophenol 274-09-9, 1,3-Benzodioxole
    320-76-3
              329-01-1, 3-Trifluoromethylphenyl isocyanate
   2-Nitro-3-fluorophenol 394-31-0, 2-Amino-5-hydroxybenzoic acid
   394-33-2, 4-Fluoro-2-nitrophenol 400-98-6, 4-Amino-3-
   nitrobenzotrifluoride 444-30-4, 2-Trifluoromethylphenol
   5-Fluoro-2-nitrophenol 463-71-8, Thiophosgene
                                                              446-36-6,
   2-Hydroxy-3-aminobenzoic acid 544-92-3, Copper(I) cyanide
                     576-24-9, 2,3-Dichlorophenol 580-51-8, 3-Phenylphenol
                                                                570-23-0,
   603-87-2, 2-Hydroxy-3-nitroaniline 609-89-2, 4,6-Dichloro-2-nitrophenol
   611-20-1, 2-Cyanophenol 614-68-6, 2-Methylphenyl isocyanate 615-36-1,
   2-Bromoaniline 618-45-1, 3-Isopropylphenol 620-17-7, 3-Ethylphenol
   644-35-9, 2-Propylphenol 700-87-8, 2-Methoxyphenyl isocyanate
   776-04-5, 2-(Trifluoromethyl)benzenesulfonyl chloride
  2-Nitro-4-(trifluoromethyl)benzenesulfonyl chloride 873-62-1,
                  1548-13-6, 4-Trifluoromethylphenyl isocyanate
  2-Bromophenyl isocyanate 1623-92-3, 4-Phenoxyphenylsulfonyl chloride
  1762-95-4, Ammonium thiocyanate 1899-93-0, 3-Methylbenzenesulfonyl
  chloride 1939-99-7, Benzylsulfonyl chloride 2237-30-1, 3-Cyanoaniline
  2243-42-7, 2-Phenoxybenzoic acid 2285-12-3, 2-Trifluoromethylphenyl
  isocyanate 2374-03-0, 3-Hydroxy-4-aminobenzoic acid
  4-Bromophenyl isocyanate 2612-57-9, 2,4-Dichlorophenyl isocyanate
  2834-92-6, 1-Amino-2-hydroxynaphthalene 2835-98-5, 2-Hydroxy-4-
  methylaniline 3272-08-0, 2-Nitro-4-cyanophenol 3320-83-0,
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2-Chlorophenyl isocyanate
                                 3320-86-3, 2-Nitrophenyl isocyanate
      3470-49-3, 5-Hydroxy-1-indanone
                                       4091-26-3, Styrylsulfonyl chloride
      5395-71-1, 2-Ethoxyphenyl isocyanate
                                            5417-63-0, 3-Amino-2-
      hydroxynaphthalene 6344-59-8, 1-Hydroxy-2-nitrofluorene
      Ammonia, reactions
                                                                7664-41-7,
                          13020-57-0, 3-Hydroxybenzophenone 13360-57-1,
      Dimethylsulfamoyl chloride 14755-02-3
                                               16629-19-9, 2-Thiophenesulfonyl
      chloride 16744-98-2, 2-Fluorophenyl isocyanate
      2-Phenylphenyl isocyanate 17573-92-1, 3-Methoxythiophene 17802-02-7,
      3-Chloro-2-nitrophenol 18162-48-6, tert-Butyldimethylsilyl chloride
     18493-15-7 18704-37-5, 8-Quinolinesulfonyl chloride
      3-Methoxyphenyl isocyanate 20513-43-3
                                                            18908-07-1,
                                              21286-54-4, (+)-10-
     Camphorsulfonyl chloride
                               23095-31-0, 3,4-Dimethoxyphenylsulfonyl
     chloride
                24615-22-3 26386-88-9, Diphenylphosphoryl azide
     Sodium azide
                    32315-10-9, Triphosgene 35821-29-5
                                                                   26628-22-8,
     39262-22-1, (-)-10-Camphorsulfonyl chloride 40398-01-4,
                                                          39234-86-1
     2-Chloro-6-methylphenyl isocyanate
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     41195-90-8, 2,3-Dichlorophenyl isocyanate
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     2-Amino-4-(ethylsulfonyl)phenol 52260-30-7, 2-Methylthiophenyl
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     4-amino-3-hydroxybenzoate
                                65295-69-4, 2,6-Difluorophenyl isocyanate
     69812-29-9, 2-Acetamido-4-methyl-5-thiazolesulfonyl chloride
     2,3-Difluoro-6-nitrophenol 93254-81-0, 2-Benzyloxybenzophenone
     99968-81-7, 3-Iodo-2-hydroxyaniline 126714-85-0, 2,3-Dichlorothiophene-5-
     sulfonyl chloride 146224-62-6, 5-Aminocarbonyl-2-aminophenol
     182500-26-1, 2-Trifluoromethoxyphenyl isocyanate 182500-27-2,
     2-Amino-5,6-diphenylphenol 182500-28-3, 2-Nitro-5-methyl-4-bromophenol
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    4-Trifluoromethyl-3-fluoro-2-hydroxyaniline
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    RL: RCT (Reactant); RACT (Reactant or reagent)
                                                 183513-64-6
       (prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
       antagonists for disease treatment)
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IT
    2-Amino-4-fluorophenol 400-99-7P, 2-Nitro-4-trifluoromethylphenol
    454-81-9P, 2-Amino-4-trifluoromethylphenol
    2-Amino-4,6-dichlorophenol 1214-44-4P, 2-Amino-6-
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    (phenylaminocarbonyl)phenol 4291-30-9P, 2-Nitro-6-phenylphenol
    4363-03-5P, 2-Amino-5-phenylphenol 5768-39-8P, 2,3-Methylenedioxybenzoic
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                    28177-79-9P, 2-Nitro-6-cyanophenol
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   2-Nitro-6-propylphenol 115023-65-9P, 2-Amino-6-propylphenol
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   182499-79-2P
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4-Amino-3-(phenylsulfamido)benzonitrile
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     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
        antagonists for disease treatment)
     55586-26-0P, 2-Amino-5-cyanophenol
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (prepn. of N,N'-diphenylurea derivs. as interleukin-8 receptor
       antagonists for disease treatment)
     55586-26-0 HCAPLUS
RN
    Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME)
CN
```

- ANSWER 30 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13 1995:790895 HCAPLUS ANDN123:246605 In Vivo and in Vitro Studies on the Neurotoxic Potential of ${f T}{f I}$ 6-Hydroxydopamine Analogs Ma, Su; Lin, Lorrie; Raghavan, R.; Cohenour, Pat; Lin, Peter Y. T.; AU Bennett, Jennifer; Lewis, Russell J.; Enwall, Eric L.; Kostrzewa, Richard; Department of Chemistry Biochemistry, University of Oklahoma, Norman, OK, CS Journal of Medicinal Chemistry (1995), 38(20), 4087-97 SQ CODEN: JMCMAR; ISSN: 0022-2623 American Chemical Society PB
- Journal \mathtt{DT}
- LΑ English
- CC
 - 1-11 (Pharmacology)

Section cross-reference(s): 4, 25

To det. which phys. and biol. properties could best be correlated with AB

Page 103 neurotoxic potential, seven analogs of 1-(2,4,5-trihydroxyphenyl)-2aminoethane (1), better known as 6-hydroxydopamine, were synthesized and compared to 1 in a variety of ways both in vivo and in vitro. The analogs, in combination with the std. 1, include all eight of the 2,4,5-trisubstituted-Ph derivs. of phenethylamine and .alpha.methylphenethylamine in which the substitution is of the trihydroxy or aminodihydroxy form. Low (60 nmol) and high (300 nmol) intracerebroventricular doses of all analogs produced long-term (7 day) redn. of mouse whole brain norepinephrine (NE) and lesser depletions of dopamine (DA), and effects on serotonin were varied. The analog 1-(5-amino-2,4-dihydroxyphenyl)-2-aminopropane (8) was both more complete and more selective than the std. 1 in depleting NE. Using a histofluorometric glyoxylic acid method and Fink-Heimer silver degeneration stain, it was detd. that overt neural degeneration was produced by 8. In vitro, the ease of oxidn. of the eight analogs was represented by a formal potential range of -130 to -212 mV vs. SCE. However, there was no obvious relation between ease of oxidn. and the extent of monoamine depletion from mouse brain. Using kinetic anal. of synaptosomal accumulation of [3H]NE and [3H]DA, it was found that the std. 1 is more potent in its interaction with the DA uptake site (Ki = 12.mu.M) than the NE uptake site (Ki = 51 .mu.M). A correlation anal. was used to det. that differences in NE and DA depletion by each analog could not be explained by differences in potency for in vitro uptake blockade. However, there was a correlation between the Ki for [3H]NE uptake blockade and the EC50 for synaptosomal release of preloaded [3H]NE for the eight analogs (R2 = 0.96; for log:log plot, R2 = 0.54), indicating that the results for these two in vitro tests both reflect interaction with the same NE neuronal membrane transport site. A similar correlation between Ki and EC50 was shown for all eight analogs using [3H]DA (R2 = 0.92; for log:log plot, R2 = 0.52), indicating interaction with the same DA neuronal membrane transport site. These findings demonstrate that there is no single property that can account for selectivity of action and/or potency of catecholamine neurotoxins related to 6-hydroxydopamine. neurotoxic potential hydroxydopamine analog brain monoamine Biological transport Brain (in vivo and in vitro studies on the neurotoxic potential of 6-hydroxydopamine analogs) Amines, biological studies RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(mono-, in vivo and in vitro studies on the neurotoxic potential of 6-hydroxydopamine analogs)

Toxicity ${\tt IT}$

ST

IT

(neurotoxicity, in vivo and in vitro studies on the neurotoxic potential of 6-hydroxydopamine analogs) .

1199-18-4D, 6-Hydroxydopamine, analogs ΙT

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL

(in vivo and in vitro studies on the neurotoxic potential of 6-hydroxydopamine analogs)

38411-80-2P 41241-36-5P 41241-40-1P IT41241-41-2P

106868-44-4P 168699-63-6P **168699-64-7P**

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (in vivo and in vitro studies on the neurotoxic potential of

6-hydroxydopamine analogs)

50-67-9, Serotonin, biological studies IT 51-41-2, Norepinephrine 51-61-6, Dopamine, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(in vivo and in vitro studies on the neurotoxic potential of 6-hydroxydopamine analogs)

125903-70-0P IT 168699-65-8P 168699-66-9P 168699-67-0P 168699-68-1P 168699-69-2P 168699-70-5P 168699-71-6P 168699-72-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in vivo and in vitro studies on the neurotoxic potential of 6-hydroxydopamine analogs)

41241-40-1P 168699-64-7P IT

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(in vivo and in vitro studies on the neurotoxic potential of 6-hydroxydopamine analogs)

41241-40-1 HCAPLUS RN

1,4-Benzenediol, 2-amino-5-(2-aminoethyl)- (9CI) (CA INDEX NAME) CN

$$HO$$
 $CH_2-CH_2-NH_2$
 OH

168699-64-7 HCAPLUS RN

1,4-Benzenediol, 2-amino-5-(2-aminopropyl)- (9CI) (CA INDEX NAME) CN

HO
$$CH_2-CH-Me$$
 H_2N OH

ANSWER 31 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13

1991:628991 HCAPLUS AN

DN 115:228991

The neuromelanin of the human substantia nigra TI

Carstam, Ragnar; Brinck, Carita; Hindemith-Augustsson, Annika; Rorsman, ΑU Hans; Rosengren, Evald CS

Dep. Dermatol., Univ. Lund, Lund, S-221 85, Swed. SO

Biochimica et Biophysica Acta (1991), 1097(2), 152-60 CODEN: BBACAQ; ISSN: 0006-3002

DTJournal

LA English

13-1 (Mammalian Biochemistry) CC

The pigment of the human substantia nigra was isolated after extn. of AB lipids and proteins with 2% sodium cholate in 30% EtOH followed by 2% SDS in 10% glycerol. The pigment was hydrolyzed with HI or degraded by treatment with KMNO4 and the samples were examd. for compds. known to

derive from pheomelanin (4-amino-3-hydroxyphenylalanine, AHP and 4-amino-3-hydroxyphenylethylamine, AHPEA), or from eumelanin (pyrrole-2,3,5-tricarboxylic acid, PTCA). The HI hydrolysis yielded AHPEA in large quantities, indicating cysteinyldopamine as the main source of the pheomelanin moiety of the neuromelanin, but also trace amts. of AHP, derived from cysteinyldopa oxidn. products. Dopamine and small quantities of dopa were also obtained by HI hydrolysis of the neuromelanin. yield of PTCA was low, but the amts. obsd. show that part of the neuromelanin is of the eumelanin type, a fact compatible with an occasional exhaustion of the glutathione-cysteine redn. system at the site of neuromelanin formation.

brain substantia nigra neuromelanin; melanin brain substantia nigra; STpheomelanin brain substantia nigra; eumelanin brain substantia nigra IT

RL: PRP (Properties)

(compn. of, in human brain substantia nigra)

Pheomelanins IT

RL: BIOL (Biological study)

(of brain substantia nigra, of human, compn. of)

IT Melanins

IT

RL: BIOL (Biological study)

(eu-, of brain substantia nigra, of human, compn. of)

Brain, composition IT

(substantia nigra, neuromelanin of, compn. of, in human)

19641-92-0, Cysteinyldopa 99558-89-1

RL: BIOL (Biological study)

(neuromelanin formation from, in human brain substantia nigra)

IT104083-77-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

IT 104083-77-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

104083-77-4 HCAPLUS RN

Phenol, 2-amino-5-(2-aminoethyl)- (9CI) (CA INDEX NAME) CN

$$CH_2-CH_2-NH_2$$
OH

ANSWER 32 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13

1989:544155 HCAPLUS AN

111:144155 DN

Positive-type photosensitive lithographic plates TIIN

Kobayashi, Yoshiko; Tomiyasu, Hiroshi; Goto, Sei; Nakai, Hideyuki

Mitsubishi Kasei Corp., Japan; Konica Co. PA

Jpn. Kokai Tokkyo Koho, 15 pp. SO CODEN: JKXXAF

DTPatent

Japanese LA

ICM G03C001-72 IC

74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other CC

Reprographic Processes)

FAN. CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE JP 01021440 PΙ 19890124 A2 JP 1987-178727 19870717 PRAI JP 1987-178727 19870717

The title plates having good chem. resistance and capable of UV ink AB printing even without burning contain, on a support, a photosensitive layer contg. an o-naphthoquinonediazide sulfonic acid ester and polymer (residual monomer content (<10%) of -CR1R2CR3(CONHR4XmYOH) - (R1, R2 = H, halogen, alkyl, aryl, carboxy; R3 = H, halogen, alkyl, aryl; R4 = H, alkyl, aryl, aralkyl; Y = (un) substituted arom. group; X = divalent org. ST

hydroxy vinyl amide polymer lithog; lithog plate photosensitive resin; naphthoquinonediazidesulfonate photosensitizer lithog plate IT

Lithographic plates

(pos.-working, chem.-resistant, photosensitive hydroxymethacrylamide or hydroxymethacryl naphthalenamide copolymer-based, contg. naphthoquinonediazidesulfonate photosensitizer)

19243-95-9P IT27931-11-9P 117646-95-4P

RL: IMF (Industrial manufacture); PREP (Preparation) (manuf. and polymn. of)

68510-93-0 84135-66-0 IT

RL: USES (Uses)

(photosensitizers, in pos.-working lithog. plates)

IT68584-99-6 115111-30-3 115111-33-6 117646-96-5 RL: USES (Uses) 119417-67-3

(pos.-working photosensitive lithog. plates contg., chem.-resistant)

920-46-7, Methacrylyl chloride IT

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with hydroxy aniline and hydroxy naphthylamine)

IT83-55-6 123-30-8 55586-26-0

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with methacrylyl chloride)

IT55586-26-0

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with methacrylyl chloride)

55586-26-0 HCAPLUS RN

Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME) CN

- ANSWER 33 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13
- 1989:57408 HCAPLUS ΑN
- 110:57408 DN
- Preparation of rifamycin derivatives as antibiotics TI
- Yamane, Takehiko; Kondo, Hideo; Fuse, Yoshihide; Hashizume, Takushi; Kano, IN Fumihiko; Yamashita, Katsuji; Hosoe, Kazunori; Watanabe, Kiyoshi PA
- Kanegafuchi Chemical Industry Co., Ltd., Japan SO
- Jpn. Kokai Tokkyo Koho, 15 pp.

HARDEE 10/052967 10/1/03 Page 107

CODEN: JKXXAF

Patent DT

Japanese LA

ICM C07D498-18 IC

ICS A61K031-535; A61K031-54; C07D513-18

26-5 (Biomolecules and Their Synthetic Analogs) CC

Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND A2	DATE 19880226 19860414	APPLICATION NO. 	DATE 19870331
PRAI	JP 63045282 JP 1986-85815 MARPAT 110:57408				

The title compds. I [X = 0, S; R1 = CH0, C1-4 acyl, (CH2)mZ (wherein m = AB 1-4, Z = H, cyano, C1-3 alkoxy, C1-4 acyl, etc.), Q, etc.; G = CH2, C0], useful as antibiotics, were prepd. A mixt. of rifamycin S and 2-amino-4-trifluoromethylphenol in PhMe was stirred at 60.degree. for 16 h. After evapn. of PhMe, the residue was stirred with MnO2 in EtOH at room temp. for 21 h to give I (X = 0, R1 = 4'-CF3) (II). II in vitro exhibited a MIC of 0.16 .mu.g/mL against Micrococcus luteus IFO 12708.

rifamycin deriv prepn antibiotic \mathtt{ST}

13553-79-2, Rifamycin S ΙŢ

RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclocondensation of, with aminophenol deriv.) 454-81-9, 2-Amino-4-trifluoromethylphenol IT

RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclocondensation of, with rifamycin S)

52820-13-0P, 3-Amino-4-hydroxybenzyl alcohol IT 54255-50-4P 4-Amino-3-hydroxybenzyl alcohol 118172-66-0P, 2-Amino-4-(2-114484-31-0P, hydroxyethyl)phenol 118172-67-1P 118172-69-3P, 2-Amino-4-(methoxymethyl)phenol 118172-71-7P 118172-72-8P 118172-74-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(prepn. and cyclocondensation of, with rifamycin S) 41833-13-0P, 4-Hydroxy-3-nitrobenzyl alcohol IT61161-83-9P, 3-Hydroxy-4-nitrobenzyl alcohol

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (prepn. and hydrogenation of) 6322-56-1P IT 63367-08-8P 118172-64-8P 118172-65-9P 118172-70-6P 118172-68-2P 118172-73-9P 118172-76-2P 118172-77-3P 118473-04-4P 118473-03-3P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (prepn. and reaction of, in prepn. of rifamycin antibiotics) 6998-60-3DP, Rifamycin, derivs. IT RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) 114484-11-6P IT 114484-12-7P 114494-69-8P 114669-09-9P 118172-39-7P 114682-25-6P 118172-40-0P 118172-41-1P 118172-42-2P 118172-44-4P 118172-43-3P 118172-45-5P 118172-46-6P 118172-47-7P 118172-49-9P 118172-48-8P 118172-50-2P 118172-51-3P 118172-52-4P 118172-54-6P 118172-53-5P 118172-55-7P 118172-56-8P 118172-57-9P 118172-59-1P 118172-58-0P 118172-60-4P 118172-61-5P RL: BAC (Biological activity or effector, except adverse); BSU (Biological 118172-62-6P study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. of, as antibiotic) 99-93-4, p-Hydroxyacetophenone IT501-94-0 704-13-2 p-Methoxymethylphenol 5355-17-9, 5471-51-2 7483-41-2 14191-95-8 4-Chloro-3-nitrobenzaldehyde 16588-34-4, 55912-20-4, 4-Chloro-3-nitrobenzyl alcohol 57375-25-4, 3-Bromorifamycin S RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in prepn. of rifamycin antibiotic) 704-13-2, 3-Hydroxy-4-nitrobenzaldehyde IT3011-34-5, 4-Hydroxy-3nitrobenzaldehyde RL: RCT (Reactant); RACT (Reactant or reagent) (redn. of) IT118172-74-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (prepn. and cyclocondensation of, with rifamycin S) 118172-74-0 HCAPLUS RNPhenol, 2-amino-5-[(diethylamino)methyl]- (9CI) (CA INDEX NAME) CNCH2-NEt2

- ANSWER 34 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13
- 1987:50224 HCAPLUS AN
- 106:50224 DN
- Dopamine derivatives and their use as medicinal products \mathtt{TI} IN
- Schoellkopf, Klaus; Albrecht, Rudolf; Lehmann, Manfred; Schroeder, Gertrud PA
- Schering A.-G., Fed. Rep. Ger.
- PCT Int. Appl., 67 pp. SO CODEN: PIXXD2
- DT Patent

LA German

IC ICM C07D231-56

ICS C07D235-06; C07D235-08; C07D235-10; C07D235-26; C07D235-30; C07D235-28; C07D249-18; C07D285-12; C07C103-44; C07C127-19; A61K031-415; A61K031-41; A61K031-135

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1

FAN.	CNT 2				•	
	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
PI PRAI OS GI	WO 8601204 W: AU, DK, RW: AT, BE, DE 3430310 DE 3525563 AU 8546777 AU 592765 JP 62500168 AT 76639 DK 8601687 US 4958026 DE 1984-3430310 DE 1985-3525563 EP 1985-904092 WO 1985-DE275 CASREACT 106:502	CH, DE A1 A1 A1 B2 T2 E A A		IT,	WO 1985-DE275 LU, NL, SE DE 1984-3430310 DE 1985-3525563 AU 1985-46777 JP 1985-503646 AT 1985-904092 DK 1986-1687 US 1986-867365	19850814 19840815
_ _						

$$X$$

$$X$$

$$Y = Q$$

$$NH = Q^{2}$$

$$NH = Q^{4}$$

$$OH$$

$$OH$$

Dopamine analogs R1R2NCH2CH2A (A = Q, Q1, Q2, Q3, Q4; R1, R2 = H, C1-5 alkyl, allyl; D = CR4, N; R4 = H, C1-4 alkyl, CF3, NH2; E = CO, CS, SO2; X = OH, NH2, NHCOR3, NHCONH2, NHSO2CF3; Y = OH, NH2, NHCOR3, NHCONH2, NHSO2CF3, NHSO2Me; X .noteq. Y when either = OH; R3 = C1-4 alkyl; Z = H, OH), useful as antihypertensives, were prepd. 3,4-H2NCH2CH2C6H3(OH)NHCHO after Bolus injection in spontaneously hypertensive rats, 10 mg/kg I decreased blood pressure 22% (also max. value), whereas 0.3 mg/kg N,N-dipropyldopamine-HBr infused over 20 min gave max. 15% decrease, with

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HARDEE 10/052967
                         10/1/03
                                    Page 110
       0% after 20 and 60 min.
  ST
       antihypertensive dopamine analog prepn
       Antihypertensives
  IT
          (dopamine analogs)
       100-46-9, reactions
  IT
                             124-02-7, Diallylamine
       RL: RCT (Reactant); RACT (Reactant or reagent)
          (amidation by, of indazolylacetic acid deriv.)
  IT
                  358-23-6, Trifluoromethanesulfonic acid anhydride
       141-75-3
       RL: RCT (Reactant); RACT (Reactant or reagent)
          (amidation of)
       75-52-5, Nitromethane, reactions
  IT
       RL: RCT (Reactant); RACT (Reactant or reagent)
          (condensation of, with benzimidazolonecarboxaldehyde deriv.)
       123-38-6, reactions
  IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
          (condensation of, with phenylethylamine deriv.)
      61873-94-7
  IT
      RL: PROC (Process)
          (conversion of, to acid chloride)
 IT
      7803-58-9
      RL: RCT (Reactant); RACT (Reactant or reagent)
          (cyclization of, with diaminobenzene deriv.)
      609-09-6, Diethyl mesoxalate
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (cyclization of, with methoxyaniline deriv.)
      76-05-1, Trifluoroacetic acid, reactions
 IT
                                                  109-52-4, Valeric acid,
      reactions
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (cyclocondensation of, with aminoaniline deriv.)
      100-44-7, Benzyl chloride, reactions
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (etherification by, of hydroxynitrobenzaldehyde)
IT
     700-38-9
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (etherification of, with benzyl chloride)
     69053-51-6
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (formylation of)
    106222-33-7
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (nitrosation and cyclization of)
     104102-89-8P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (prepn. and acylation by, of dipropylamine)
     104103-03-9P
{f IT}
                    104103-17-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (prepn. and acylation of)
     104083-57-0P
IT
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
```

(prepn. and amidation of)

RL: SPN (Synthetic preparation); PREP (Preparation)

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and condensation of, with nitromethane)

106222-39-3P

106221-93-6P

IT

IT

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(prepn. and condensation of, with propionaldehyde)
       104103-11-9P
  IT
                      106222-02-0P 106222-05-3P
       RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
          (prepn. and cyclization of)
  IT
       104103-20-0P
       RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
          (prepn. and cyclization of, with di-Et mesoxalate)
       96886-48-5P
  IT
                    103544-39-4P
                                   104083-40-1P
                                                  104083-45-6P
                                                                  104083-64-9P
       104103-26-6P 104103-31-3P 104103-34-6P
                                                   106222-08-6P
                                                                 106222-09-7P
       RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
          (prepn. and debenzylation of)
      104083-47-8P
  IT
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
          (prepn. and elimination reaction or hydrogenation of)
      101389-63-3P 104083-70-7P
 IT
                                    106222-13-3P
                                                   106222-16-6P
      106222-22-4P 106222-26-8P
                                                                  106222-19-9P
                                    106222-28-0P
                                                   106222-31-5P
                                                                  106222-34-8P
      106222-36-0P
                     106222-42-8P
      RL: SPN (Synthetic preparation); PREP (Preparation)
         (prepn. and ether cleavage of)
 IT
      3011-34-5P, 4-Hydroxy-3-nitrobenzaldehyde
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and etherification of)
      104102-91-2P
 IT
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and formylation or acylation of)
      104083-54-7P
 IT
                    104083-68-3P 104102-88-7P
                                                  104102-94-5P
      104103-02-8P
                                                                  104102-95-6P
                    104103-04-0P
                                   104103-09-5P
                                                  104103-19-7P
                                                                 106222-04-2P
      106222-40-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and hydrogenation of)
     104102-96-7P
 IT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and hydrogenation or debenzylation and acylation of)
     104083-56-9P
IT
                    104083-66-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and hydrolysis of)
     104103-23-3P
IT
                    104138-91-2P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and hydrolysis or ether cleavage of)
     104103-10-8P
IT
                  104103-22-2P
                                   106221-92-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (prepn. and nitrosation and cyclization of)
     106221-91-4P
IT
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (prepn. and reaction of, with (dimethylamino)ethylnitroindazole deriv.)
    106221-96-9P
IT
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
```

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(prepn. and reaction of, with dipropylamine)
      104102-99-0P
  IT
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
          (prepn. and reaction of, with hydroxylaminesulfonic acid)
      106221-98-1P
 IT
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and reaction of, with potassium tert-butoxide)
      104102-93-4P
 IT
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and reaction of, with sodium cyanide)
      104102-92-3P
 IT
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and reaction of, with thionyl chloride).
      104102-98-9P
 IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and reaction of, with tert-butoxybis(dimethylamino)methane)
     104103-01-7P
 IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
        (prepn. and reaction with propional dehyde or hydrogenation of)
     22955-07-3P, 4-(Benzyloxy)-3-nitrobenzaldehyde
IT
                                                      104083-58-1P
     104083-61-6P
                    104083-63-8P
                                   104102-90-1P
                                                  104103-00-6P
                                                                 104103-05-1P
     104103-07-3P
                    104103-16-4P, (3-Methoxy-4-nitrophenyl)acetonitrile
     106221-99-2P
                    106222-01-9P
                                  106222-03-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and redn. of)
     104103-21-1P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and ring cleavage of)
     104102-97-8P
IT
                    106222-00-8P
                                   106235-58-9P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
    81666-88-8P
IT
                  101389-53-1P
                                  101389-54-2P
                                                 101566-34-1P
    104083-39-8P
                                                                103544-40-7P
                   104083-41-2P 104083-43-4P
                                                104083-44-5P
    104083-46-7P
                   104083-49-0P
                                  104083-50-3P
                                                  104083-51-4P
    104083-53-6P
                                                                 104083-52-5P
                   104083-55-8P
                                  104083-59-2P
                                                 104083-60-5P
    104083-65-0P
                                                                 104083-62-7P
                   104083-67-2P
                                  104083-69-4P
                                                 104083-71-8P
                                                                 104083-72-9P
    104083-73-0P
                   104083-74-1P 104083-75-2P
                                               104083-76-3P
    104083-77-4P
                   104083-78-5P
                                  104083-79-6P
                                                 104083-80-9P
    104083-81-0P
                   104083-82-1P
                                  104083-83-2P
                                                 104083-84-3P
                                                                104083-85-4P
    104083-86-5P
                   104083-87-6P
                                  104083-88-7P
                                                 104083-90-1P
                                                                104083-91-2P
    104083-93-4P
                   104103-15-3P
                                  104103-18-6P
                                                 104103-25-5P
                                                                104103-29-9P
    104103-30-2P 104103-32-4P
                                104103-33-5P
                                               104104-11-2P
    106221-94-7P
                   106222-06-4P
                                  106222-07-5P
                                                 106222-10-0P
    106222-12-2P
                                                                106222-11-1P
                   106222-14-4P
                                  106222-15-5P
                                                 106222-17-7P
                                                                106222-18-8P
    106222-20-2P
                   106222-21-3P
                                  106222-23-5P
                                                 106222-24-6P
    106222-29-1P
                                                                106222-27-9P
                  106222-30-4P
                                  106222-32-6P
                                                 106222-35-9P
                                                                106222-37-1P
    106222-38-2P
                  106222-41-7P
                                  106222-44-0P
                                                 106235-59-0P
   106235-61-4P
                                                                106235-60-3P
                  106235-62-5P
   RL: BAC (Biological activity or effector, except adverse); BSU (Biological
   study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
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HARDEE 10/052967
                         10/1/03
                                    Page 113
       BIOL (Biological study); PREP (Preparation); USES (Uses)
           (prepn. of, as antihypertensive)
       104083-48-9P
  IT
       RL: SPN (Synthetic preparation); PREP (Preparation)
          (prepn. of, as antihypertensive)
       51-61-6DP, Dopamine, analogs
  IT
       RL: SPN (Synthetic preparation); PREP (Preparation)
          (prepn. of, as antihypertensives)
       5815-08-7
  IT
       RL: RCT (Reactant); RACT (Reactant or reagent)
          (reaction of, with (benzyloxy)nitrotoluene)
       420-04-2
  IT
                  530-62-1, N,N'-Carbonyldiimidazole
                                                        6160-65-2,
      N, N'-Thiocarbonyldiimidazole
       RL: RCT (Reactant); RACT (Reactant or reagent)
          (reaction of, with benzenediamine deriv.)
      27077-78-7
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
          (reaction of, with bis(dimethylamino)-tert-butoxymethane)
      6282-00-4, N,N-Dipropylformamide
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
          (reaction of, with di-Me sulfate)
 IT
      77-78-1
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with dipropylformamide)
      865-47-4, Potassium tert-butoxide
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with formamidinium Me sulfate)
      38512-82-2, 5-Methyl-2-nitroanisole
 IT
                                             104103-06-2
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with tert-butoxybis(dimethylamino)methane)
      142-84-7, Dipropylamine
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reactions of)
     81654-50-4
 IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (ring cleavage of)
     104083-43-4P 104083-75-2P 104083-77-4P
IT
     104103-32-4P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of, as antihypertensive)
     104083-43-4 HCAPLUS
RN
     Phenol, 2-amino-5-(2-aminoethyl)-, hydrochloride (9CI) (CA INDEX NAME)
CN
            CH2-CH2-NH2
H<sub>2</sub>N
       OH
```

HARDEE 10/052967 10/1/03 Page 114

104083-75-2 HCAPLUS RN

Phenol, 2-amino-5-[2-(dipropylamino)ethyl]- (9CI) (CA INDEX NAME) CN

$$CH_2-CH_2-N(Pr-n)_2$$
OH

104083-77-4 HCAPLUS RN

Phenol, 2-amino-5-(2-aminoethyl)- (9CI) (CA INDEX NAME) CN

$$H_2N$$
OH
 $CH_2-CH_2-NH_2$

104103-32-4 RN**HCAPLUS**

Phenol, 2-amino-5-[2-(dipropylamino)ethyl]-, dihydrochloride (9CI) CN

$$CH_2-CH_2-N(Pr-n)_2$$
OH

●2 HCl

L13 ANSWER 35 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN

1986:572181 HCAPLUS

105:172181 DN

Dopamine derivatives \mathtt{TI}

Albrecht, Rudolf; Lehmann, Manfred; Schroeder, Gertrud IN

Schering A.-G., Fed. Rep. Ger. PA

Ger. Offen., 45 pp. SO

CODEN: GWXXBX

DTPatent

LA German

ICM C07D231-54 IC

ICS A61K031-135; A61K031-17; A61K031-41

26-9 (Biomolecules and Their Synthetic Analogs) CC Section cross-reference(s): 1

FAN. CNT 2

PATENT NO. KIND DATE

APPLICATION NO. DATE

PI		3430310 8601204 W: AU, DK,	A1 19860227 A1 19860227 JP, US	DE 1984-3430310 WO 1985-DE275	19840815 19850814
PRAI GI	AU EP EP JP AT DK US DE DE EP	RW: AT, BE, 8546777 592765 189473 189473 R: AT, BE, 62500168 76639 8601687 4958026 1984-3430310 1985-3525563 1985-904092 1985-DE275	A1 19860307 B2 19900125 A1 19860806 B1 19920527	LU, NL, SE AU 1985-46777 EP 1985-904092 LI, LU, NL, SE JP 1985-503646 AT 1985-904092 DK 1986-1687 US 1986-867365	19850814 19850814 19850814 19850814 19860414 19860530

Dopamine derivs. R1R2NCH2CH2A (A = 3,4-XYC6H3, Q, Q1; R1, R2 = H, alkyl, AΒ allyl; X = OH, NH2, NHCOR3, NHCONH2, NHSO2CF3, when Y = OH; Y = OH, NH2, NHCOR3, NHCONH2, NHSO2CF3, NHSO2Me, when X = OH; X .noteq. Y = OH; R3 =alkyl; Z = H, OH, when Z = OH, A can be in tautomeric form), useful as antihypertensives, were prepd. For example, formamide I was prepd. in 8 steps from 4,3-HO(O2N)C6H3CHO. At 10 mg/kg in rats, I decreased blood pressure 22% max.

antihypertensive dopamine deriv prepn; formamidophenethylamine STantihypertensive prepn

Antihypertensives IT

(dopamine derivs.)

IT 141-75-3 358-23-6

RL: RCT (Reactant); RACT (Reactant or reagent) (acylation by, of aminophenethylamine deriv.)

IT100-44-7, reactions

RL: RCT (Reactant); RACT (Reactant or reagent) (benzylation by, of hydroxynitrobenzaldehyde)

700-38-9 IT3011-34-5

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HARDEE 10/052967 10/1/03 Page 116
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RL: RCT (Reactant); RACT (Reactant or reagent)
          (benzylation of)
       61873-94-7
  IT
       RL: PROC (Process)
          (conversion of, to acid chloride)
       104102-93-4P
  IT
       RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
          (prepn. and cyanation of)
       104083-40-1P
  IT
                     104083-42-3P
                                    104083-45-6P
                                                   104083-64-9P
                                                                  104103-28-8P
       104103-31-3P
                     104103-34-6P
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
       (Reactant or reagent)
          (prepn. and debenzylation of)
      104083-54-7P
  IT
                     104102-88-7P
                                    104102-94-5P
                                                   104102-95-6P
                                                                  104102-96-7P
      104103-02-8P
                     104103-09-5P
                                    104103-18-6P
                                                   104103-19-7P
                                                                  104103-20-0P
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
          (prepn. and hydrogenation of)
      104103-26-6P
 IT
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and hydrogenolysis of)
      104083-56-9P
 IT
                    104083-66-1P
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (prepn. and hydrolysis of)
      104083-48-9P
 IT
                    104083-57-0P
                                   104083-68-3P
                                                  104083-89-8P
                                                                 104083-90-1P
      104083-91-2P
                    104102-98-9P
                                   104102-99-0P
                                                  104103-01-7P
                                                                 104103-03-9P
      104103-04-0P 104103-07-3P
                                   104103-10-8P
                                                  104103-11-9P
                                                                 104103-12-0P
     104103-13-1P
                    104103-14-2P
                                   104103-15-3P
                                                  104103-16-4P
                                                                 104103-17-5P
     104103-21-1P
                    104103-22-2P
                                   104103-23-3P
                                                  104103-24-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
                                                                 104138-91-2P
      (Reactant or reagent)
         (prepn. and reaction of)
     104102-89-8P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and reaction of, with amine)
IT
     104102-92-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and reaction of, with thionyl chloride)
     22955-07-3P
IT
                  104083-58-1P
                                 104083-61-6P
                                                104083-63-8P
                                                               104102-90-1P
     104103-00-6P 104103-05-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and redn. of)
     104102-91-2P
IT
                   104102-97-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of)
     32550-92-8P
IT
                  81666-88-8P
                                101566-34-1P
                                               103544-40-7P
                                                              104083-39-8P
    104083-41-2P 104083-43-4P
                                104083-44-5P
                                               104083-46-7P
    104083-49-0P 104083-50-3P
                                  104083-51-4P
                                                 104083-52-5P
                                                                104083-53-6P
    104083-55-8P 104083-59-2P
                                  104083-60-5P
                                                 104083-62-7P
    104083-67-2P 104083-69-4P
                                                                104083-65-0P
                                 104083-71-8P
                                                104083-72-9P
                                                                104083-73-0P
    104083-74-1P 104083-75-2P
                                104083-76-3P 104083-77-4P
    104083-78-5P
                   104083-79-6P
                                 104083-80-9P
                                                104083-81-0P
                                                               104083-82-1P
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HARDEE 10/052967
                        10/1/03
                                   Page 117
      104083-83-2P
                      104083-84-3P
                                     104083-85-4P
                                                    104083-86-5P
                                                                   104083-87-6P
      104083-88-7P
                      104083-92-3P
                                     104083-93-4P
                                                    104103-25-5P
                                                                   104103-27-7P
      104103-29-9P
                      104103-30-2P 104103-32-4P
                                                  104103-33-5P
      104104-11-2P
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
      BIOL (Biological study); PREP (Preparation); USES (Uses)
          (prepn. of, as antihypertensive)
      51-61-6DP, derivs.
 IT
      RL: PREP (Preparation)
          (prepn. of, as antihypertensives)
      96886-48-5P
 IT
      RL: SPN (Synthetic preparation); PREP (Preparation)
         (prepn., hydrogenolysis and acylation of)
      2950-43-8
 IT
                  5815-08-7 38512-82-2
                                           81654-50-4
                                                        104083-70-7
      104103-06-2
                    104103-08-4
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of)
      104083-47-8
 IT
                   104083-54-7
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of,)
      100-46-9, reactions
 IT
                            124-02-7
      RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with indazoleacetic acid deriv.)
      142-84-7
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with phenylacetyl chloride deriv.)
     123-38-6, reactions
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (reductive amination of, with phenylethylamine deriv.)
IT
     104083-43-4P 104083-75-2P 104083-77-4P
     104103-32-4P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of, as antihypertensive)
     104083-43-4 HCAPLUS
RN
     Phenol, 2-amino-5-(2-aminoethyl)-, hydrochloride (9CI) (CA INDEX NAME)
CN
            CH2-CH2-NH2
H<sub>2</sub>N
       OH
        •x HCl
```

Phenol, 2-amino-5-[2-(dipropylamino)ethyl]- (9CI) (CA INDEX NAME)

104083-75-2 HCAPLUS

RN

CN

$$CH_2-CH_2-N(Pr-n)_2$$
 H_2N
OH

104083-77-4 HCAPLUS RNPhenol, 2-amino-5-(2-aminoethyl)- (9CI) (CA INDEX NAME) CN

$$H_2N$$
OH
 $CH_2-CH_2-NH_2$

104103-32-4 HCAPLUS RNPhenol, 2-amino-5-[2-(dipropylamino)ethyl]-, dihydrochloride (9CI) CNINDEX NAME)

$$CH_2-CH_2-N(Pr-n)_2$$
OH

2 HCl

ANSWER 36 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13

1985:62165 HCAPLUS AN

DN 102:62165

[1,4]Benzoxazine-2,3-diones as antiallergic agents TI

Loev, Bernard; Jones, Howard; Brown, Richard E.; Huang, Fu Chih; AU Khandwala, Atul; Leibowitz, Mitchell J.; Sonnino-Goldman, Paula

Dep. Med. Chem., Revlon Health Care Group, Tuckahoe, NY, 10707, USA CS

Journal of Medicinal Chemistry (1985), 28(1), 24-7 SO CODEN: JMCMAR; ISSN: 0022-2623

DTJournal

English LA

28-13 (Heterocyclic Compounds (More Than One Hetero Atom)) CC

OS CASREACT 102:62165

GI

Benzoxazinediones I [R=H, 6-Cl, 6-, 7-, 8-MeO, 7-OH, 6-CF3, 4-, 7-Me, AB6-NO2, 7-CN, 6-CO2Et, 7-CO2H, 6-NHCOCO2Et, 6,7-(MeO)2, 6-CO2Me-8-MeO, 8-MeO-6-CH2CH:CH2, 6,7-(CH2)4, 6,7-, 5,6-CH:CHCH:CH] were prepd. by cyclizing amminophenols II with (ClCO)2. Benzobisoxazinetetrones III (X=O, X1=NH; X=NH, X1=O) were prepd. in 6 steps from 2,4-(MeO)2C6H3NH2 and in 5 steps from 2,5,4-(MeO)2(O2N)C6H2NH2, resp. I and III were evaluated for their effect in the rat mast cell (RMC) test passively sensitized in vitro with rat antiovalbumin serum and for their effect in inhibitory passive cutaneous anaphylaxis (PCA) in the rat. Some of these compds. are of the same potency level as disodium cromoglycate in the RMC test and some are effective orally in PCA.

allergy benzoxazinedione benzobisoxazinetetrone prepn; anaphylaxis STbenzoxazinedione benzobisoxazinetetrone prepn

Allergy IT

(benzoxazinediones and benzobisoxazinetetrones in treatment of)

IT Anaphylaxis

(passive cutaneous, benzoxazinediones and benzobisoxazinetetrones effect on)

IT79-37-8

> RL: RCT (Reactant); RACT (Reactant or reagent) (cyclization of, with aminophenols)

IT95-55-6 95-85-2 99-57-0 454-81-9 2374-03-0 2834-92-6 5417-63-0 2835-98-5 7107-04-2 13052-92-1 13066-95-0 20734-76-3 28094-04-4 40925-70-0 40925-71-1 55586-26-0 92643-71-5 92643-72-6 92643-73-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclization of, with oxalyl chloride, benzoxazinedione deriv. by)

IT3597-63-5P 27383-80-8P 27393-19-7P 27393-20-0P 72985-52-5P 81055-21-2P 81055-22-3P 81055-23-4P 81055-25-6P 81055-27-8P 81055-28-9P 81055-29-0P 81055-30-3P 81055-31-4P 81055-32-5P 81066-48-0P 81066-49-1P 92643-66-8P 92643-67-9P 92643-68-0P 92643-69-1P 92643-70-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and antiallergic activity of)

92643-77-1P IT 92643-81-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and cyclization of, benzobisoxazinetetrone by)

92643-76-0P IT92643-80-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and demethylation of)

92643-74-8P 92643-78-2P IT

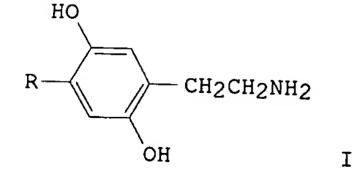
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and hydrogenation of)

IT24451-12-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and nitration of) 92643-75-9 IT 92643-79-3 RL: RCT (Reactant); RACT (Reactant or reagent) (prepn. N-acetylation of, by Et oxalyl chloride) 4755-77-5 IT RL: RCT (Reactant); RACT (Reactant or reagent) (N-acetylation by, of aniline derivs.) IT2735-04-8 RL: RCT (Reactant); RACT (Reactant or reagent) (N-acetylation of, by Et oxalyl chloride) 55586-26-0 ITRL: RCT (Reactant); RACT (Reactant or reagent) (cyclization of, with oxalyl chloride, benzoxazinedione deriv. by) 55586-26-0 HCAPLUS RN Benzonitrile, 4-amino-3-hydroxy- (9CI) CN (CA INDEX NAME)

ANSWER 37 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN L13 1984:120754 HCAPLUS AN100:120754 DNSynthesis and physicochemical and neurotoxicity studies of TI1-(4-substituted-2,5-dihydroxyphenyl)-2-aminoethane analogs of 6-hydroxydopamine Cheng, Alice C.; Castagnoli, Neal, Jr. ΑU Sch. Pharm., Univ. California, San Francisco, CA, 94143, USA CS Journal of Medicinal Chemistry (1984), 27(4), 513-20 SO CODEN: JMCMAR; ISSN: 0022-2623 DTJournal LΑ English CC 26-9 (Biomolecules and Their Synthetic Analogs) GΙ



AB In an attempt to evaluate the possible relationship between the neurotoxicity of 6-hydroxydopamine and the redox properties and electrophilic reactivity of the 6-hydroxydopamine-p-hydroquinone/p-quinone

ST

IT

```
system, the 6-hydroxydopamine analogs I (R = H, Me, OMe, NO2, NH2, Br,
  cyano, CO2H, Cl) were prepd. With the aid of cyclic voltammetry, the
  formal oxidn. potentials (E.degree.') for the p-hydroquinone/p-quinone
  redox couples and the rates of cyclization of the p-quinones to the
 corresponding p-iminoquinones were detd. As expected, electron-rich I
 were easily oxidized to the p-quinones, which underwent cyclization
  slowly, whereas the oxidn. of electron-poor I required higher voltages and
 yielded p-quinones, which cyclized readily at pH 7.4. In vivo destruction
 of nonadrenergic terminals, as measured by inhibition of norepinephrine
 uptake by rat heart slices, occurred only with I bearing electron-donating
 substituents. Potent neurotoxic properties were assocd. with I (R = NH2,
 OH) which form p-quinones that do not cyclize readily at pH 7.4. These
 results support the thesis that the p-quinone deriv. may be an important
 species in the mediation of the neurodestruction caused by
 6-hydroxydopamine.
 hydroxydopamine substituent neurotoxicity prepn; oxidn electrochem
 hydroxydopamine
 Nerve, toxic chemical and physical damage
    (from hydroxydopamine derivs.)
 Oxidation, electrochemical
    (of hydroxydopamine derivs.)
 66142-81-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
    (demethylation of)
 1199-18-4
 RL: PRP (Properties)
    (neurotoxicity of, oxidn. in relation to)
 88441-00-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
    (prepn. and deacetylation of)
 88440-98-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
    (prepn. and deblocking of)
3600-86-0P
             24333-19-5P
                           88441-02-5P 88441-07-0P
                                                      88441-11-6P
 88441-14-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
    (prepn. and demethylation of)
88441-16-1P
              88453-16-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (prepn. and hydrogenolysis of)
88440-96-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (prepn. and oxidn. of)
88441-04-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (prepn. and reaction of, with cyanide)
24160-51-8P
             25505-64-0P 40276-11-7P 88440-97-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (prepn. and redn. of)
15394-83-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
```

(Reactant or reagent) (prepn. and tert-butoxycarbonylation of) IT13062-74-3P 88440-94-2P 88440-95-3P 88440-99-7P **88441-01-4P** 88441-03-6P 88441-06-9P 88441-08-1P 88441-10-5P 88441-13-8P 88441-15-0P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) IT21581-41-9P 38411-82-4P 41241-39-8P 41241-40-1P 81255-52-9P 81255-55-2P 88441-05-8P 88441-09-2P 88441-12-7P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn., oxidn., and neurotoxicity of) 75-52-5, reactions ITRL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with dimethoxybenzaldehydes) 4925-88-6 ITRL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with nitrobenzene) IT4460-86-0 93-02-7 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with nitromethane) IT88441-01-4P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) 88441-01-4 HCAPLUS RN1,4-Benzenediol, 2-amino-5-(2-aminoethyl)-, monohydrochloride (9CI) CN (CA INDEX NAME)

$$HO$$
 $CH_2-CH_2-NH_2$
 OH

HC1

$$HO$$
 $CH_2-CH_2-NH_2$
 OH

L13 ANSWER 38 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN AN 1975:444735 HCAPLUS DN 83:44735

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Bis-aroxazoly-p-polyphenylenes
 TI
      Fleck, Fritz; Kittl, Hans; Schmid, Horst
 IN
      Sandoz Ltd., Switz.
 PA
      Patentschrift (Switz.), 7 pp.
 SO
      CODEN: SWXXAS
 DT
      Patent
 LA
      German
 IC
      C07D; C08K
      40-11 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
 CC
 FAN. CNT 1
      PATENT NO.
                       KIND
                             DATE
                                            APPLICATION NO.
                                                              DATE
      CH 559737
 ΡI
                        Α
                             19750314
                                            CH 1971-14172
                                                              19710928
 PRAI CH 1971-14172
                             19710928
      For diagram(s), see printed CA Issue.
 GI
      Fluorescent whiteners [I, R = H, Me3C; R1 = H, CN; R2 = H, Me, CMe3; R3 =
 AB
     H; (RR1), (R2R3) = benzo; n = 3,4] were prepd. and were used to whiten
     polyamide, polyester, or polypropylene fibers from the melt. Thus, a
     mixt. of p-terphenyl-4,4''-dicarbonyl chloride [50349-66-1] and
     9-amino-10-hydroxyphenanthrene [55586-24-8] in PhCl in the presence of
     pyridine was heated at 130.degree. for 2 hr to give the diamide
     intermediate, the diamide was cyclized by heating at 240-50.degree. for 2
     hr in dibutyl phthalate-diethylene glycol in the presence of H3BO3 to give
     fluorescent whitener I [(RR1) = (R2R3) = benzo, n = 3) [35325-04-3]. Five
     other I were similarly prepd.
     fluorescent brightener bisbenzoxazolyl; benzoxazole fluorescent
ST
     brightener; terphenyl fluorescent brightener; quaterphenyl fluorescent
     brightener; polyamide fiber fluorescent brightener; polyester fiber
     fluorescent brightener; polypropylene fiber fluorescent brightener
     Fluorescent brighteners
IT
         (bis(aroxazolyl)polyphenylenes, polyamide, polyester and polypropene
        fibers)
ΙŢ
     Polyamide fibers
     Polyester fibers
     Polypropene fibers
     RL: USES (Uses)
         (fluorescent brighteners for, bis(aroxazoly)polyphenylenes as)
IT
                   37421-46-8P 37421-47-9P 37421-48-0P 37421-49-1P
     37421-45-7P
     RL: PREP (Preparation)
        (fluorescent brighteners, manuf. of)
IT
     55586-25-9P
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and cyclization of)
     35325-04-3P
IT
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (prepn. and polyamide fiber fluorescent brightening by)
     55586-27-1
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with aminohydroxyaryl derivs.)
     50349-66-1
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with aminohydroxyphenanthrene)
     95-84-1
IT
               1643-39-6
                           2834-92-6 55586-26-0
   . RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with quaterphenyldicarbonyl chloride)
     55586-24-8
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
```

(reaction of, with terphenyldicarbonyl chloride)

IT 55586-26-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with quaterphenyldicarbonyl chloride)

RN 55586-26-0 HCAPLUS

CN Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME)

L13 ANSWER 39 OF 40 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1973:438437 HCAPLUS

DN 79:38437

TI Selective destruction of adrenergic nerve terminals by chemical analogs of 6-hydroxydopamine

AU Tranzer, J. P.; Thoenen, H.

CS Dep. Exp. Med., F. Hoffmann-La Roche and Co. Ltd., Basel, Switz.

SO Experientia (1973), 29(3), 314-15 CODEN: EXPEAM; ISSN: 0014-4754

DT Journal

LA English

CC 1-3 (Pharmacodynamics)

The mechanism of adrenergic action in rats was studied by comparing the chem. structure of 6-hydroxydopamine analogs with their norepinephrine-depleting activities and their effects on adrenergic nerve structure. The redox potential of these compds. is apparently one of the essential factors detg. whether a chem. sympathectomy occurs or not.

ST adrenergic dopamine analog; hydroxydopamine analog adrenergic

IT Nerve

(adrenergic, hydroxydopamine analogs effect on)

IT Molecular structure-biological activity relationship

(nerve terminal-degenerating, of hydroxydopamine analogs)

IT 1199-18-4 4228-71-1 14901-09-8 21581-41-9 21581-49-7 38411-80-2 41241-36-5 41241-39-8 **41241-40-1** 41241-41-2 41241-42-3

41241-36-5 41241-39-8 41241-40-1 41241-43-4 41241-45-6 41241-46-7 41241-47-8 41241-48-9

41241-49-0 41241-50-3

RL: BIOL (Biological study)

(adrenergic nerve terminal degeneration and norepinephrine depletion by)

IT 51-41-2

RL: BIOL (Biological study)

(hydroxydopamine analogs effect on)

IT 41241-40-1

RL: BIOL (Biological study)

(adrenergic nerve terminal degeneration and norepinephrine depletion by)

RN 41241-40-1 HCAPLUS

CN 1,4-Benzenediol, 2-amino-5-(2-aminoethyl)- (9CI) (CA INDEX NAME)

$$HO$$
 $CH_2-CH_2-NH_2$ OH

ANSWER 40 OF 40 HCAPLUS L13 COPYRIGHT 2003 ACS on STN

1925:18055 HCAPLUS AN

DN 19:18055

OREF 19:2339g-i,2340a-g

Formation of quinonimides and phenoxazones from o-aminophenols TI

v. Auwers, K.; Murbe, E.; Sauerwein, K.; Deines, G.; Schornstein, J. AU

Forschritte der Chemie, Physik und physik. Chem. (1924), 18 (No. 2), 37-77 SO

LA

DT Journal Unavailable 10 (Organic Chemistry) CC 3,5-Me2C6H3OH (I) in AcOH and Cl give 66% of the p-Cl deriv. (II), m. AB 114-5.degree.; a conCd. soln. in CCL4 gives a mixt. of mono- and di-Cl derivs. (32.2% CL), m. 77.5-8.5.degree., whose Bz deriv., m. 113-4.degree.. Completely satg. I in AcOH with Cl gives 1,3-dimethyl-2,4,4,6-tetrachloro-2,6-cyclohexadien-5-one (or 1,3-dimethyl-2,2,4,6-tetrachloro-3,6-cyclohexadien-5-one), m. 106-7.degree., decompd. by warm NaOH. II and Me2SO4 give the Me ether, b14 117.degree., m. 22.5-3.5.degree., which, with AcCl and AlCl3 in CS2 gives the o-Ac deriv., m. 76-7.degree. (oxime, m. 134-5.degree.). Heated with AlCl3 at 140-50.degree., there results p-chloro-o-aceto-sym-mxylenol, m. 109.degree. (oxime, m. 138.5.degree.). The oxime, boiled with 1: 1 HCl, yields o-amino-p-chloro-sym-m-xylenol (III), m. 148-9.degree., quickly turns yellow in the air. The o-NO2 deriv. of II, egg-yellow, m. 87-9.degree., also gives III on reduction. Oxidation of III in NaOH by O or by air in H2O2 soln. gives 3,5-dimethyl-2-amino-1,4-benzoquinone 4-[2,4-dimethyl-3-chloro-6-hydroxyphenyl]imide, brownish yellow prisms or ocher-yellow powder, m. 188-9.degree., sol. in EtOH-NaOH with a yellow-red color and is pptd. unchanged by H2O; diln. of the brownish H2SO4 soln. gives a pale green fluorescence. 2,6,4-Me2(HO)C6H2CH:- NOH with AcOH-AcONa, followed by sapon., gives p-cyano-sym-m-xylenol, m. 174-5.degree., whose o-NO2 deriv., pale yellow, m. 136.5-7.5.degree.; reduction gives the o-NH2 deriv., m. 1656.degree., which is unchanged by oxidizing agents. Hemimellitenol Me ether, b. 220.5.degree., AcCl and AlCl3 give o-acetohemimellitenol, m. 83.5-4.5.degree.; the oxime, m. 147.degree., with HCl gives o-aminohemimellitenol (IV), m. 164-5.degree., and traces of 2,4,5,6-tetramethylbenzoxazole, m.70-1.degree.. o-Nitrohemimellitenol, yellow m.96-8.degree.. Oxidation of IV did not give definite products. o-Aminoisopseudocumene, m. 157-8.degree., on oxidation with air gives 3,5,6-trimethyl-2-amino-1,4-benzoquinone 4-[2,4,5-trimethyl-6-hydroxyphenol]imide, deep yellow, m. 177-8.degree.; HCl salt, red; H2SO4 gives a Bordeaux-red color. m-ClC6H4NH2 gives a mixt. of 5,2-Cl(O2N)C6H3OH (V) and 5-chloro-4-nitrophenol, pale yellow, m. 120-1.degree. (av. yields, 30-35 and 25-30%). Reduction of V with SnCl2 and HCl gives 5-chloro-2-aminophenol, m. 153-4.degree. (HCl salt, m. 226-7.degree. (decompn.); di-Bz deriv., m. 140.degree.). Oxidation with air gives 7-chloro-3-aminophenoxazone (VI), dark reddish violet, m. 288.degree.; Ac deriv., orange-yellow, m. 325.degree.. With 2-HOC6H4CHO there results 3-[2-hy-hydroxybenzylidene]amino-7-chlorophenoxazone, nearly black, with metallic luster, m. 310-1.degree.. VI and 5,2-Cl(H2N)C6H3OH.HCl give 2,6-dichlorotriphendioxazine, wine-red,

sublimes above 360.degree., and gives a deep blue concd. H2SO4 soln. 5-Bromo-2-nitrophenol, m. 41.5-2,5.degree. (35-40% yields); the 4-nitro deriv., yellow, m. 129-30.degree.. 5-Bromo-2-aminophenol, pale rose, m. 146-7.degree.. 7-Bromo-3-aminophenoxazone, dark red, m. 285-6.degree.; 2,6-dibromotriphendioxazine, brown flakes, sublimes above 360.degree.; concd. H2SO4 soln., deep blue. 2-Aceto-3,5-dichlorophenol (VII), m. 49-50.degree. (35-40%); the 4-Ac deriv., m. 117-9.degree. (yield, 30%). Oxime of VII, m. 140-1.degree.; HCl gives 3,5-dichloro-2-aminophenol, m. 132-3.degree. (60% yield) and some 2-methyl-4,6-dichlorobenzoxazole, m. 50-1.degree.. 3-Amino-4,5,7-trichlorophenoxazone, brick-red, m. 286-7.degree.. 4-Aceto-3,5-dibromophenol, m. 141-2.degree.. 2-Ac deriv., m. 96-7.degree.; oxime, m. 139-40.degree.. 3,5-Dibromo-2-aminophenol, m. 142-3.degree.; the anhydro-base, 2-methyl-4,6-dibromobenzoxazole, m. 100-2.degree.. 3-Amino-4,5,7-tribromophenoxasone, wine-red, m. 305-6.degree.. 3-Hydroxy-4-nitrobenzaldoxime, light yellow, m. 161.degree.. 5-Cyano-2-nitrophenol, brownish yellow, m. 121.degree.; Ac deriv., m. 107.degree.. 5-Cyano-2-aminophenol, light yellow, m. 149-50.degree.; di-Bz deriv., m. 165-6.degree.. Oxidation did not give characteristic compds. 5-Nitro-2-aminophenol benzoate, m. 266-7.degree.; oxidation of the free phenol gave indefinite products. 2-Methyl-5-chlorophenol, m. 73-4.degree.. 6-Nitro deriv., Au-yellow, m. 54.5-5.degree. (the p-deriv., m. 144-5.degree.); 6-amino deriv., m. 151.degree.; oxidation gave 1,8-dimethyl-4,5-dichloro-3-aminophenoxazone, blood-red, m. 308-9.degree.. 2-Methyl-3-chloro-6-aminophenol, m. 102.degree.; oxidation gave 1,8-dimethyl-7-chloro-3-amittophenoxazone, dark red, m. 278-9.degree.; Ac deriv., orange-red, m. 304-5.degree.. structure of o-nitro-p-xylenol, whose Bs deriv., m. 79-80.degree., follows from its reduction by SnCl2: to 2-phenyl-4,7-dimethyl-bensoxazole, m. 75.degree.. o-Amino-p-xylenol, m. 149-50.degree., N-Bz deriv., m. 210-1.degree.; dibenzoate, m. 178-9.degree.. 1,4,5,8-Tetramethyl-3aminophenoxazone, dark bronze-red, m. 275-6.degree.; Ac deriv., bright red, m. 228-9.degree.. p-Bromo-o-nitro-p-xylenol, m. 102-3.degree.; the o-amino deriv., m. 135.5-6.degree. (di-Bz deriv., m. 217-8.degree.); oxidation expts. gave indefinite results. o,o-Diamino-sym-m-xylenol, m. 179-80.degree.; oxidation gave no definite results. 2,1-H2NC10H6OH gave no definite product on oxidation; the crude product gave a "semicarbazone," C21H17O2N5, of indefinite m. p. Thus, in general, o-NH2C6H4OH contg. in the m-position to the HO group a strongly negative group do not give oxidation products. Quinonimines (from o-aminophenols) Phenols

IT

IT

(o-amino-, quinonimines and phenoxazones from) 2,5-Benzoxylide, 3'-bromo-6'-hydroxy-, benzoate IT2,5-Benzoxylide, 6'-hydroxy-2,5-Benzoxylide, 6'-hydroxy-, benzoate 2,5-Xylenol, 4-bromo-6-nitro-2,5-Xylenol, 6-amino-4-bromo-2,5-Xylenol, 6-nitro-, benzoate 2,5-Xylenol, 6-nitro-, benzoate 2,6-Xylonitrile, 3-amino-4-hydroxy-2,6-Xylonitrile, 4-hydroxy-2,6-Xylonitrile, 4-hydroxy-3-nitro-3,4,5-Hemimellitenol, 2-amino-3,4,5-Hemimellitenol, 2-nitro-

3,5-Xylenol, 2,6-diamino-3,5-Xylenol, 2-amino-4-chloro-

3,5-Xylenol, 4-chloro-2-nitro-

IT

ΙT

IT

RN

CN

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3,5-p-Xyloquinonimine, 2-amino-N-(3-chloro-6-hydroxy-2,4-xylyl)-
  3-Isophenoxazone, 4-acetamido-2,5,7,10-tetramethyl-
  3-Isophenoxazone, 4-acetamido-9-chloro-
  3-Isophenoxazone, 4-acetamido-9-chloro-2,10-dimethyl-
  3-Isophenoxazone, 4-amino-2,5,7,10-tetramethyl-
  3-Isophenoxazone, 4-amino-5,7,9-tribromo-
  3-Isophenoxazone, 4-amino-5,7-dichloro-2,10-dimethyl-
  3-Isophenoxazone, 4-amino-5-7,9-trichloro-
 3-Isophenoxazone, 4-amino-9-bromo-
  3-Isophenoxazone, 4-amino-9-chloro-
 3-Isophenoxazone, 4-amino-9-chloro-2,10-dimethyl-
 3-Isophenoxazone, 9-chloro-4-salicylalamino-
 Acetophenone, 2,4-dibromo-6-hydroxy-
 Acetophenone, 2,4-dibromo-6-hydroxy-, oxime
 Acetophenone, 2,4-dichloro-6-hydroxy-
 Acetophenone, 2,4-dichloro-6-hydroxy-, oxime
 Acetophenone, 2,6-dibromo-4-hydroxy-
 Acetophenone, 3-chloro-6-hydroxy-2,4-dimethyl-
 Acetophenone, 3-chloro-6-hydroxy-2,4-dimethyl-, oxime
 Acetophenone, 3-chloro-6-methoxy-2,4-dimethyl-
 Acetophenone, 3-chloro-6-methoxy-2,4-dimethyl-, oxime
 Acetophenone, 6-hydroxy-2,3,4-trimethyl-
 Acetophenone, 6-hydroxy-2,3,4-trimethyl-, oxime
 Benzanilide, 2'-hydroxy-4'-nitro-
 Benzanilide, 4'-chloro-2'-hydroxy-, benzoate
 Benzanilide, 4'-cyano-2'-hydroxy-, benzoate
 Benzanilide, o',o'''-dithiobis[N-methyl-
 Benzonitrile, 3-hydroxy-4-nitro-, acetate
 Benzoxazole, 3,5-dibromo-1-methyl-
 Benzoxazole, 3,5-dichloro-1-methyl-
 Benzoxazole, 3,6-dimethyl-1-phenyl-
 Isopseudocumenol, 6-amino-
Quinonimine, 2-amino-N-(6-hydroxy-s-pseudocumyl)-3,5,6-trimethyl-
Triphenodioxazine, 3,10-dibromo-
Triphenodioxazine, 3,10-dichloro-
o-3,5-Xylenone, 2,2,4,6-tetrachloro-
o-Cresol, 5-chloro-4-nitro-
o-Cresol, 5-chloro-6-nitro-
o-Cresol, 6-amino-3-chloro-
o-Cresol, 6-amino-5-chloro-
p-3,5-Xylenone, 2,4,4,6-tetrachloro-
Phenoxazones
   (from o-aminophenols)
491-11-2, Phenol, 3-chloro-4-nitro-
                                      5306-98-9, o-Cresol, 5-chloro-
5470-65-5, Phenol, 3-bromo-4-nitro-
                                      6981-15-3, Anisole,
4-chloro-3,5-dimethyl-
                         17672-23-0, 2,5-Xylenol, 6-amino-
                                                             18495-15-3,
Benzonitrile, 3-hydroxy-4-nitro- 27684-84-0, Phenol, 5-bromo-2-nitro-
28443-50-7, Phenol, 2-amino-5-chloro- 38191-34-3, Phenol,
2-amino-5-bromo- 55586-26-0, Benzonitrile, 4-amino-3-hydroxy-
56549-03-2, Phenol, 2-amino-5-chloro-, -HCl
                                              56962-03-9, Phenol,
2-amino-3,5-dichloro-
                        71608-10-1, 2,5-Xylenol, 6-nitro-
Benzaldehyde, 3-hydroxy-4-nitro-, oxime 116632-17-8, Phenol,
2-amino-3,5-dibromo-
   (prepn. of)
55586-26-0, Benzonitrile, 4-amino-3-hydroxy-
   (prepn. of)
55586-26-0 HCAPLUS
Benzonitrile, 4-amino-3-hydroxy- (9CI) (CA INDEX NAME)
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10/1/03

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